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## HEIGHTS AND WEIGHTS OF SCHOOL CHILDREN.

**A Study of the Heights and Weights of 14,335 Native White School Children in Maryland, Virginia, and North and South Carolina.<sup>1</sup>**

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### INTRODUCTORY.

A number of so-called standards of the physical development of children are in more or less general use in this country, largely for determining the state of nutrition. For the most part these standards represent averages of measurements made by different observers in widely separated communities, without reference to racial stock or geographical distribution. For purposes of comparison and in order to present anthropometrical observations for groups that are fairly homogeneous with respect to race stock and geographic location in the United States, selections of records were made from a considerably larger amount of material collected in a series of field investigations in child hygiene by Public Health Service officers during the last six years.

The present study deals with 14,335 white children of native parentage in representative localities in Maryland, Virginia, and North and South Carolina. The observations are confined to children actually attending school, ranging in age from 6 to 16 years, inclusive. While in every case a somewhat intensive physical examination (and for a considerable proportion, mental examination) was made, all children regardless of their physical or mental status, were included. The observations, therefore, may be said to be of a typical school population within the racial and geographical limits mentioned; they include the handicapped individuals, as far as handicapped individuals were found attending school, as well as the probable normal.

A considerable variety of anthropometrical records was collected for each individual in addition to records of physical defects and mental status. The present study, however, is confined to observations

<sup>1</sup> From Field Investigations in Child Hygiene, United States Public Health Service, in cooperation with the Statistical Office, United States Public Health Service.

on standing height and weight. The presentation of the other data is reserved for later publications.

#### SCOPE OF THE STUDY.

A statistical study of the height and weight records of the 14,335 children was made along the following lines:

1. A series of comparisons of the mean heights and weights at different ages for the two sexes for the purposes (a) of discovering such differences as might exist at various ages between boys and girls with respect to height, weight, and the relation of weight to height; and (b) of observing the rates of growth in these respects during the period of 6-16 years.

2. The degree of variation in heights and weights at each age for either sex in terms of the standard deviation and the coefficient of variability.

3. The degree of correlation between the heights and weights of individuals of either sex at each age, using the correlation coefficient and ratio and regression coefficient as expressions of the relation.

4. The construction of a table of heights and weights according to single years of age for boys and for girls of the particular racial group and geographical section selected.

The detailed data and certain statistical constants derived therefrom are presented for reference in appended tables.

#### GENERAL CONSIDERATIONS.

*Residential distribution.*—The school children here considered were from various rural districts, small towns, and cities of moderate size in the four States mentioned. Their distribution according to locality is shown in Table I.

TABLE I.—*Distribution of 14,335 children observed for height and weight according to locality of residence.*

Name of locality.	Nature of locality with approximate population of urban localities.	Number of children observed.
Frederick County, Md. ....	Rural, village, and Frederick, town (10,000).	4,348
Petersburg, Va. ....	City (30,000) .....	1,748
Hampton, Va. ....	Town (6,000) .....	1,153
Charlotte, N. C. ....	City (45,000) .....	3,822
Spartanburg, S. C. ....	City (20,000) and near-by mill villages...	2,562
Greenville, S. C. ....	City (20,000) .....	702

It is believed that these localities are fairly representative of the section included within the four States. As mentioned above, in order to exclude differences in race stock as far as possible, except in so far as native-born persons in this section are affected by them, the 14,335 individuals selected are of native-born white parentage.

*Sex and age distribution.*—The sex and age distribution of the children are shown in Table II.

TABLE II.—Distribution according to sex and age of 14,335 native white children observed for weight and height in certain localities in Maryland, Virginia, North and South Carolina.

Age at nearest birthday (years).	Number.		Per cent.	
	Boys.	Girls.	Boys.	Girls.
All ages.....	7,132	7,203	100.0	100.0
6.....	380	353	5.3	4.9
7.....	745	735	10.4	10.2
8.....	904	854	12.7	11.9
9.....	889	900	12.5	12.5
10.....	973	936	13.6	13.0
11.....	871	847	12.2	11.8
12.....	781	805	11.0	11.2
13.....	679	695	9.5	9.6
14.....	471	528	6.6	7.3
15.....	278	331	3.9	4.6
16.....	161	219	2.3	3.0

The age at nearest birthday is employed in this study.

The distribution according to age is quite similar for the two sexes, although, as was expected, a slight preponderance of girls is to be noted at the ages 14 to 16, inclusive, because of the greater tendency on the part of older boys to quit school.

For both sexes the numbers observed at the ages of 6 to 14, inclusive, are sufficiently large to constitute reasonably fair samples of the population of this section. Less dependence can be placed on the representativeness of the data for the ages 15 and 16 because of the relatively small numbers of children comprising these age groups. This should be borne in mind when certain irregularities appear in the analysis which seem to be peculiar to the ages named.<sup>2</sup>

### I. Mean Heights and Weights.

The measurements of children considered in this study were all made by medical officers of the United States Public Health Service in the schools of the various localities included. The children were measured as they were dressed, and in shoes except when the child was attending school barefooted. Weights were taken with wraps and heavy coats removed, leaving only the ordinary indoor clothing.

The measurements are so classified that the mid-points of unit classes fall on the even inch and the even pound.

#### MEAN HEIGHTS AND WEIGHTS OF BOYS AND GIRLS AT DIFFERENT AGES.

The basis for the first series of comparisons is given in the table of mean (arithmetic average) heights and weights<sup>3</sup> (Table III).

<sup>2</sup> The probable errors of the mean heights and weights at each age are given in appendix, Table XXI.

<sup>3</sup> The mean rather than the median or modal heights and weights have been used for the reason that the means appear to be satisfactory expressions. The modes are difficult to define in some instances because of somewhat irregular distributions due to small numbers. The medians are in all instances somewhat lower than the means, but their variations are similar in all essential respects to those of the means. (See appendix, Table XXI.) Furthermore, the means are more useful in comparing our results with those of other studies, and are more desirable in expressing degrees of dispersion and correlation.

TABLE III.—*Mean heights and weights of 14,335 native white children in Maryland, Virginia, North and South Carolina, at each age, compared for boys and girls.*<sup>1</sup>

Age at nearest birthday (years).	Height (inches).		Weight (pounds).	
	Boys.	Girls.	Boys.	Girls.
6.....	45.4	44.8	47.5	45.5
7.....	46.8	46.6	50.4	48.3
8.....	48.8	48.5	54.5	52.4
9.....	50.7	50.5	59.6	58.0
10.....	52.6	52.5	65.2	64.0
11.....	54.3	54.5	71.1	70.3
12.....	56.2	57.0	78.0	79.7
13.....	58.0	59.3	85.1	89.7
14.....	60.3	61.1	95.4	99.4
15.....	62.9	62.5	108.4	107.6
16.....	64.6	63.3	116.7	113.6

<sup>1</sup> Probable errors of the means are shown in appendix, Table XXI.

The differences between the means for boys and girls at a given age period are not great, but they are significant. Table IV, showing the differences, will assist in making the comparison from this point of view:

TABLE IV.—*Comparison of the mean heights and weights (as given in Table III), showing the excess in favor of either sex at different ages.*

Age at nearest birthday (years).	Excess in the mean—			
	Height of—		Weight of—	
	Boys over girls (inches).	Girls over boys (inches).	Boys over girls (pounds).	Girls over boys (pounds).
6.....	0.6	.....	2.0	.....
7.....	.2	.....	2.1	.....
8.....	.3	.....	2.1	.....
9.....	.2	.....	1.6	.....
10.....	.1	.....	1.2	.....
11.....	.....	0.2	.8	.....
12.....	.....	.8	.....	1.7
13.....	.....	1.3	.....	4.6
14.....	.....	.8	.....	4.0
15.....	.4	.....	.8	.....
16.....	1.3	.....	3.1	.....

It will be noted in the group studied that on the average at the ages of 11 to 14, school girls are taller than school boys, and that at the ages of 12 to 14 the girls are also heavier. This observation merely corroborates for the particular racial and geographic group under consideration what has been found by other observers to be uniformly true during the period of puberty.

## WEIGHT-HEIGHT INDEX.

The relation of weight to height, commonly expressed in the form of the ratio of weight to height at each age and called the weight-height index, is shown in Table V.



TABLE V.—*Weight-height indices, or the ratios of mean weight to mean height, at each age for 14,335 native white children in Maryland, Virginia, North and South Carolina, compared for boys and girls.*

Age at nearest birthday (years).	Mean weight in pounds Mean height in inches	
	Boys.	Girls.
6.....	1.05	1.02
7.....	1.03	1.04
8.....	1.12	1.08
9.....	1.13	1.15
10.....	1.24	1.22
11.....	1.31	1.23
12.....	1.30	1.40
13.....	1.47	1.51
14.....	1.58	1.63
15.....	1.72	1.72
16.....	1.81	1.79

The differences in the indices for the sexes, it will be noted, occur at the same ages, approximately, as the differences in weights and heights considered separately. Computed from Table V, they are given for convenience in Table VI.

TABLE VI.—*Comparison of the mean weight-height index (as given in Table V) showing the excess in favor of either sex at different ages.*

Age at nearest birthday (years.)	Excess in the mean weight-height index (pounds per inch of height).	
	Boys over girls.	Girls over boys.
6.....	0.03	.....
7.....	.04	.....
8.....	.04	.....
9.....	.03	.....
10.....	.02	.....
11.....	.02	.....
12.....	.....	0.01
13.....	.....	.04
14.....	.....	.06
15.....	.....	.....
16.....	.02	.....

Here, again, it is found that the results correspond in a general way to those of similar studies of other groups of children. The boys are heavier than the girls for each inch of height at the ages of 6 to 11, both inclusive, and at 16. At the ages 12 to 14 the girls weigh more than the boys, and at 15 no difference appears for this group of children.

#### RATE OF INCREASE IN HEIGHT AND WEIGHT.

The series of means given in Tables III and V suggest an interpretation from the point of view of development; and considered in this light, although constituting observations of different individuals

at each age, they approximate the records of growth of the same individuals.

The rate of increase in height and weight or in the weight-height index is not easily seen from the tables of means and ratios. Per-

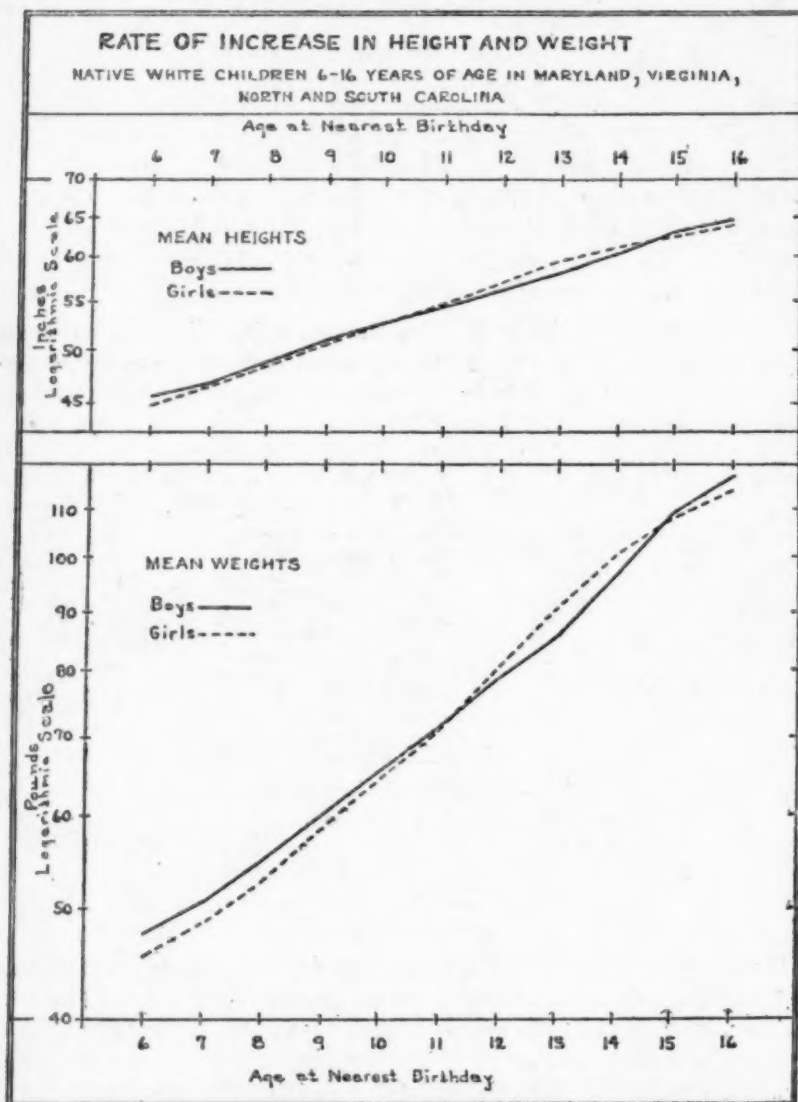


FIG. 1.

haps the quickest and simplest way to show it is to plot them on a logarithmic vertical scale. The means in Table III have been plotted in Figure 1.<sup>4</sup>

<sup>4</sup>In constructing the vertical scales for height and weight the spacing has been so arranged as to allow approximately the same space for an inch of height as for a pound in weight. The horizontal scales correspond exactly. The slope of the four lines, therefore, is comparable.

The curves also illustrate graphically the comparison of the actual mean heights and weights of boys and girls at different ages.

If the mean heights or weights fall in an absolutely straight line on a logarithmic scale (the scale being so constructed as to give the same results had the logarithms of the means been plotted on ordinary cross-section paper), obviously the rate of increase is unchanging. There are, however, quite definite curves in the lines connecting the points, indicating as other investigators have pointed out, that the rate of increase in either height or weight varies at different ages for both boys and girls. The rate of increase in the height of boys shows a tendency to slacken between the ages of 11 and 13; and the same slackening is seen for girls, but not until the age of 13. The mean weights of boys show an accelerating rate of increase until the age of 15, with a marked impetus at the age of 13. For girls the weight curve rises more rapidly than for boys up to the age of 13, where the slackened rate of increase begins and continues through the last year of age (16) for which data are available.

These variations in the rate of increase are expressed numerically in Table VII.

TABLE VII.—Percentages of annual increase in mean height and mean weight of 14,335 native white children in Maryland, Virginia, North and South Carolina, compared for boys and girls.

Age period.	Percentage increase in—			
	Height.		Weight.	
	Boys.	Girls.	Boys.	Girls.
6 to 7 <sup>1</sup> .....	4.0	4.1	6.1	6.2
7 to 8.....	3.9	3.9	8.1	8.5
8 to 9.....	3.9	4.4	9.4	10.7
9 to 10.....	3.8	3.8	9.4	10.3
10 to 11.....	3.1	3.9	9.0	9.8
11 to 12.....	3.4	5.2	9.7	13.4
12 to 13.....	3.4	4.2	9.1	12.5
13 to 14.....	4.0	2.0	12.1	10.8
14 to 15.....	4.7	2.0	13.6	8.2
15 to 16.....	3.0	1.5	7.7	5.6

<sup>1</sup> All ages are those at nearest birthday.

The relatively faster increase in weight than in height suggests, of course, that the weight-height index increases as children grow older. The curves constructed by plotting the weight-height indices in Table V on a logarithmic scale are shown in Figure 2.

Beginning at about 8 years of age the rate of increase in the weight-height index is markedly slower for boys than for girls up to the age of 13 or 14. Thereafter the opposite is true.

The means given in Table V may be used in still another way in considering the question of growth in weight in relation to height.

If the annual increment in weight be divided by the annual increment in height for the corresponding year of age, we will obtain a series of figures showing the annual increase in weight per each inch of increase in height. Table VIII presents the annual increments computed from the means given in Table III and the ratios found in the manner suggested.

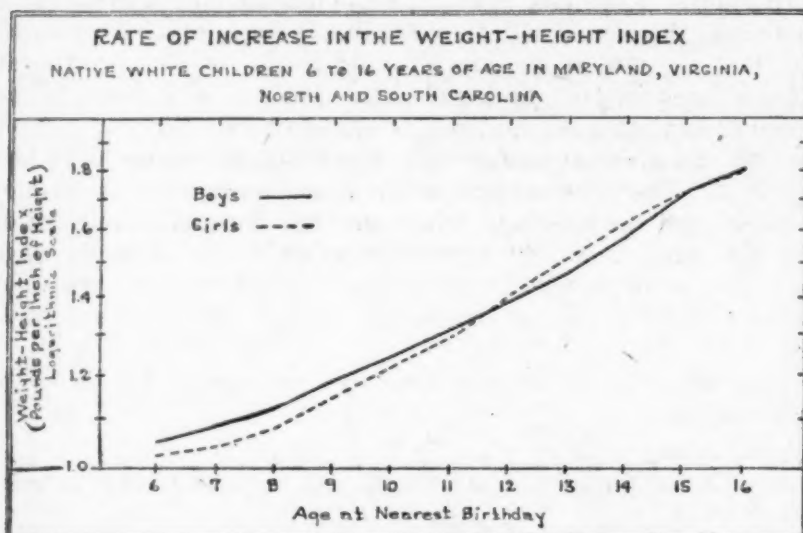


Fig. 2.

TABLE VIII.—Annual increments in pounds of weight for each inch of increment in height computed from mean weights and heights of 14,335 native white children in Maryland, Virginia, North Carolina, and South Carolina, compared for boys and girls.

Age period.	Annual increment,				Annual increment in weight (pounds) for each inch of increment in height.	
	For boys.		For girls.		Boys.	Girls.
	In height (inches).	In weight (pounds)	In height (inches).	In weight (pounds).		
6 to 7 <sup>1</sup> .....	1.4	2.9	1.8	2.8	2.1	1.6
7 to 8.....	2.0	4.1	1.9	4.1	2.1	2.2
8 to 9.....	1.9	5.1	2.0	5.6	2.7	2.8
9 to 10.....	1.9	5.6	2.0	6.0	2.9	3.0
10 to 11.....	1.7	5.9	2.0	6.3	3.5	3.2
11 to 12.....	1.9	6.9	2.5	9.4	3.6	3.8
12 to 13.....	1.8	7.1	2.3	10.0	3.9	4.3
13 to 14.....	2.3	10.3	1.8	9.7	4.5	5.4
14 to 15.....	2.6	13.0	1.4	8.2	5.0	5.9
15 to 16.....	1.7	8.3	.8	6.0	4.9	7.5

<sup>1</sup> All ages are those at nearest birthday.

The ratios in the two last columns, when considered as two series, merely indicate in another way the differences in the direction of growth of boys and girls. They have been plotted on a logarithmic scale in Figure 3.

The gain in weight by girls for each inch of gain in height increases at an almost constant rate from 7 to 16 years. Allowing for certain irregularities in the data, the gain in weight by boys for each inch of gain in height is practically the same as that by girls up to the age of 11, and thereafter is at a considerably slower rate.

COMPARISON OF MEASUREMENTS OF INDIVIDUALS OF DIFFERENT AGES WITH PERIODIC MEASUREMENTS OF A SINGLE GROUP OF INDIVIDUALS.

A number of observers have objected to height and weight standards based on measurements of children taken in cross section, at

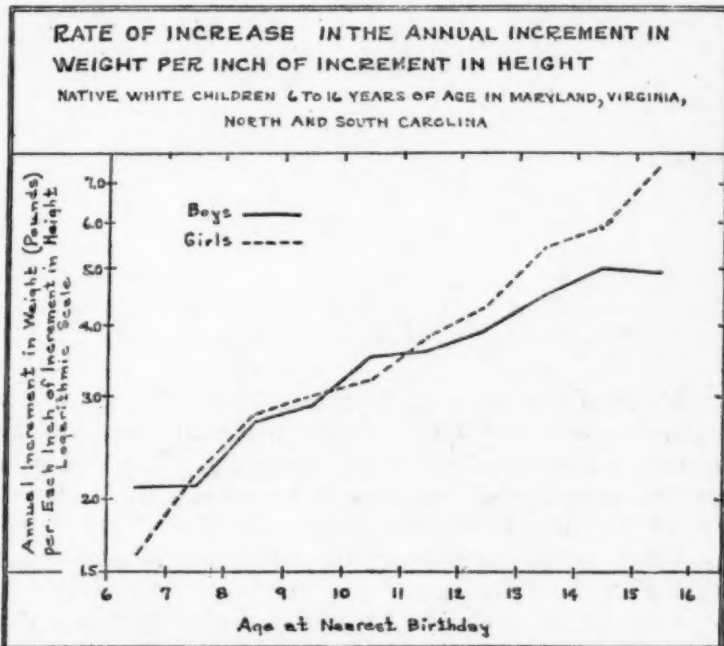


Fig. 3.

different age periods, on the ground that such measurements do not furnish an accurate index of the rate of growth. It has been suggested that such an index can be determined with appreciable accuracy only by making periodic measurements of the same children over a number of years. On the other hand, an index determined by periodic measurements requires time, while the need for fairly reliable standards by which to gauge the state of nutrition is pressingly present. Furthermore, such a group of children, of necessity, will be a selected group which finally, through process of elimination, is likely to be composed of a relatively small number of the surviving fittest who are benefited by special contact with health educational methods. There is the danger, therefore, that the end results will not be applicable for comparison with children not subjected to special influences, and with children of other sections of the country.



Although the measurements made by the United States Public Health Service constitute observations of different groups of individuals at each age, they may be compared with successive observations of a single group of individuals. Using the records recently published by Prof. B. T. Baldwin, the following comparison is afforded.<sup>5</sup>

TABLE VIII-A.—*Mean heights, mean weights, and mean weight-height indices of children of different ages measured by the United States Public Health Service, compared with corresponding measurements made periodically on a single group of children by Dr. B. T. Baldwin.*

Age at nearest birthday.	Height (inches).				Weight (pounds).				Weight-height index (pounds).			
	Boys.		Girls.		Boys.		Girls.		Boys.		Girls.	
	U. S. P. H. S.	Baldwin.	U. S. P. H. S.	Baldwin.	U. S. P. H. S.	Baldwin.	U. S. P. H. S.	Baldwin.	U. S. P. H. S.	Baldwin.	U. S. P. H. S.	Baldwin.
6.....	45.4	45.4	44.8	44.3	47.5	45.2	43.5	42.6	1.05	0.99	1.02	0.96
7.....	46.8	47.8	46.6	46.8	50.4	50.6	48.3	48.0	1.08	1.05	1.04	1.02
8.....	48.8	49.8	48.5	49.1	54.5	55.3	52.4	53.8	1.12	1.11	1.08	1.09
9.....	50.7	51.5	50.5	51.1	59.6	60.7	58.0	59.7	1.18	1.17	1.15	1.16
10.....	52.6	53.5	52.5	53.1	65.2	67.2	64.0	67.2	1.24	1.25	1.22	1.26
11.....	54.3	55.3	54.5	55.3	71.1	73.1	70.3	74.1	1.31	1.32	1.29	1.33
12.....	56.2	56.9	57.0	57.6	78.0	77.7	79.7	83.9	1.39	1.36	1.40	1.45
13.....	58.0	59.3	59.3	60.1	85.1	88.4	89.7	96.2	1.47	1.49	1.51	1.60
14.....	60.3	61.8	61.1	61.8	95.4	98.3	99.4	107.2	1.58	1.59	1.63	1.73
15.....	62.9	64.1	62.5	62.7	108.4	109.4	107.6	115.5	1.72	1.70	1.72	1.84
16.....	64.6	66.7	63.3	63.6	116.7	120.6	113.6	120.6	1.81	1.80	1.79	1.89

In the case of the boys, the height and weight curves follow the same general trend, with Baldwin's group slightly above that of the Public Health Service at practically every age. The weight-height indices for the two groups of boys are practically the same at each age except 6 years. In the case of the girls, the heights of the two groups follow much the same course, with a slight convergence of the curves at the older ages. The weight and the weight-height index curves for the girls show a tendency to diverge after 7 years of age, and the divergence is considerable by the age of 16. Some factor evidently influenced the growth of the girls measured periodically which failed to influence the girls measured by the United States Public Health Service. Otherwise the curves appear to be as similar as could be expected.

## II. Difference in Heights and Weights of Children of the Same Sex and Age.

Thus far comparisons in this study have been made of average (mean) heights and weights, but at each age children differ considerably in these respects and the differences are greater at some ages than at others. The averages which have been studied do not take into account these differences because the average (arithmetic

<sup>5</sup> Physical Growth of Children from Birth to Maturity. By Bird T. Baldwin, University of Iowa Studies in Child Welfare, 1921. Baldwin's figures are based on semiannual measurements of an average of 125 boys and 125 girls from the Horace Mann School, Teachers' College, Columbia University, New York, for periods of 8 years or more. (P. 411.)

mean) does not show for any group of children the range of weights or heights, or the "dispersion" of weights or heights above and below the average.

The nature of these differences is shown by plotting the number of children at each height or weight. As in all biometrical distributions of this character, the distribution will be found to form a

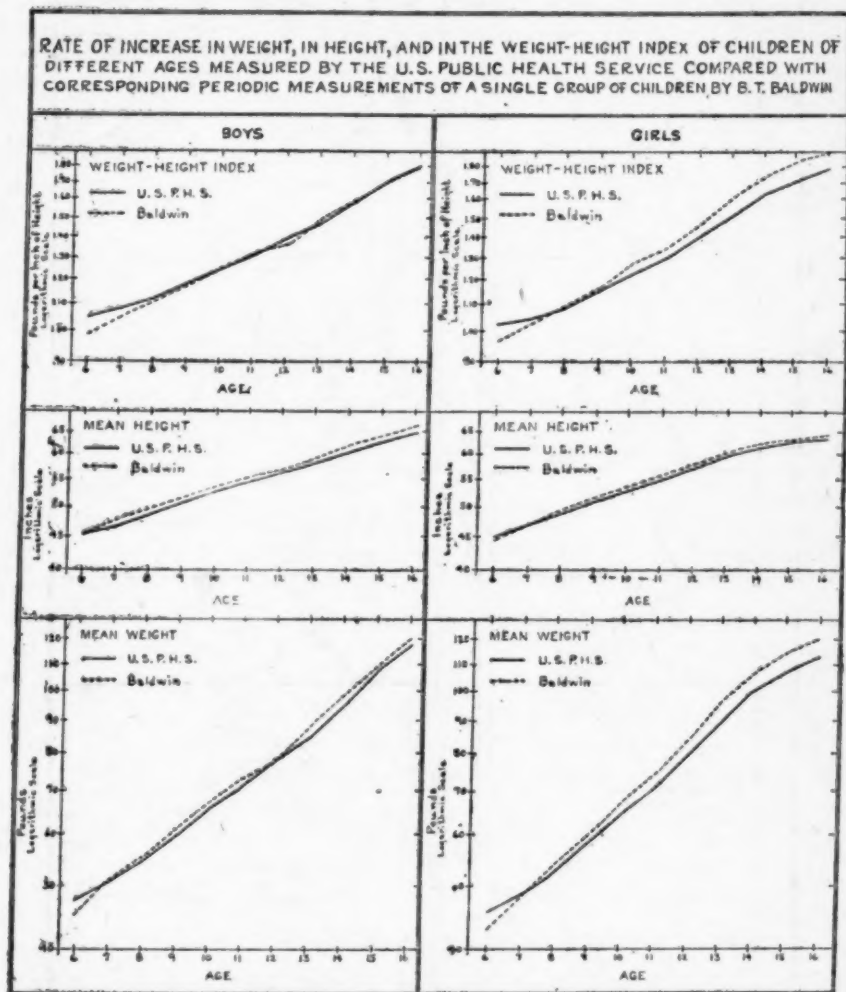


Fig. 3a.

more or less symmetrical frequency curve, which means that most of the children will tend to fall within rather narrow height or weight limits and fewer and fewer will fall in the classes toward either extreme. In plotting Figure 4, the percentages at each height or weight interval are used so as to reduce the data for the different ages to the same basis vertically.

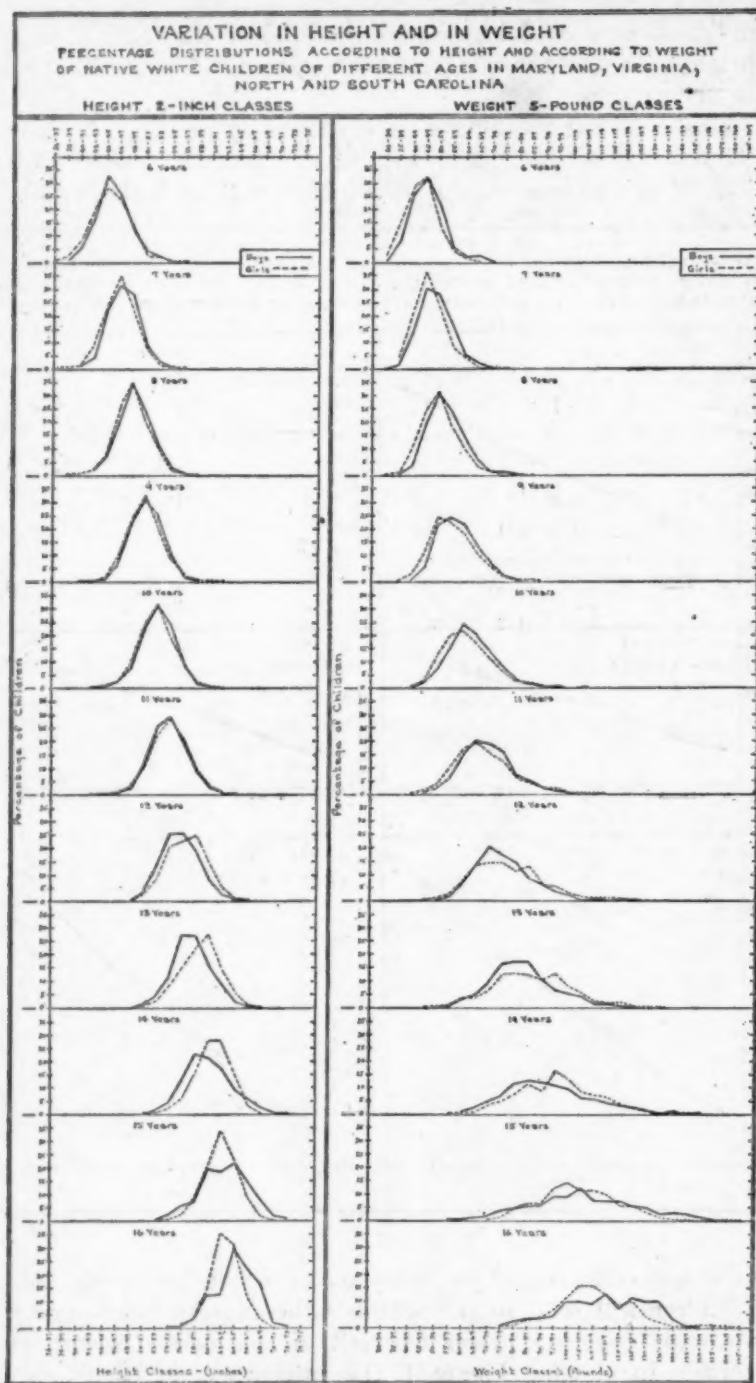


Fig. 4.

The differences in the *shape* of the curves for heights as well as for weights are quite marked when ages are compared. In general, the older the age, the flatter is the curve and hence the greater the dispersion. This means that children of a given age differ more widely in height or weight as they grow older. This statement should be qualified, however, for a closer study of the graphs affords the suggestion that the greatest dispersion or difference occurs at the age of puberty. Differences of this character are exhibited by both boys and girls.

#### STANDARD DEVIATION IN HEIGHTS AND WEIGHTS.

A more nearly exact expression of these differences than that afforded by the graphic method is necessary. The usual statistical term used to express the degree of differences in distribution is the standard deviation ( $\sigma$ ), which, in turn, is expressed by ( $V$ ) the coefficient of variability as a percentage of the mean. As the  $\sigma$  or the  $V$  is large or small, so the differences in the individual heights or weights are large or small.

In Table IX are given the standard deviations in heights and weights at each age for boys and girls and the corresponding coefficients of variability.

TABLE IX.—*Variation in heights and weights of boys and girls of the same age.*

As expressed in standard deviations in standing heights and weights at each age of 14,335 native white children in Maryland, Virginia, North and South Carolina, and the corresponding coefficients of variability.

Age at nearest birthday.	Standard deviation.		Coefficient of variability.	
	Boys.	Girls.	Boys.	Girls.
STANDING HEIGHTS.				
6.....	2.77±0.068	3.21±0.083	6.10	7.17
7.....	2.58±.045	2.53±.044	5.51	5.43
8.....	2.54±.040	2.47±.040	5.20	5.09
9.....	2.66±.043	2.60±.043	5.25	5.33
10.....	2.64±.040	2.83±.044	5.02	5.39
11.....	2.82±.046	3.00±.049	5.19	5.50
12.....	3.03±.052	3.02±.051	5.39	5.30
13.....	2.93±.051	3.16±.057	5.05	5.33
14.....	3.83±.084	2.99±.052	6.35	4.89
15.....	3.85±.110	2.02±.039	6.12	4.19
16.....	2.99±.112	2.50±.081	4.63	3.95
WEIGHTS.				
6.....	7.76±0.190	7.27±0.185	16.34	15.98
7.....	6.56±.115	6.29±.110	13.02	12.93
8.....	7.13±.113	7.39±.121	13.08	14.10
9.....	7.98±.123	9.24±.147	13.39	15.03
10.....	9.09±.130	10.79±.168	13.94	16.86
11.....	10.30±.163	12.87±.211	14.49	18.31
12.....	12.43±.212	14.85±.250	15.94	18.03
13.....	12.84±.235	16.41±.297	15.09	18.29
14.....	17.52±.385	14.75±.303	18.36	14.84
15.....	20.43±.585	10.38±.429	18.87	15.22
16.....	17.12±.644	16.24±.523	14.67	14.26

The coefficient of variability is, of course, the best expression of the degree of variation, since it takes into account the size of the mean from which the deviations are measured. As the table and the graph (Fig. 6) clearly show, there are marked differences in this coefficient for weight at different ages for the same sex and, when the sexes are compared, for the same age. After the age of 7 the variation of weight increases with age up to 13 years for girls and 15 years for boys, and then decreases, the decrease thus beginning at an earlier age for girls than for boys.

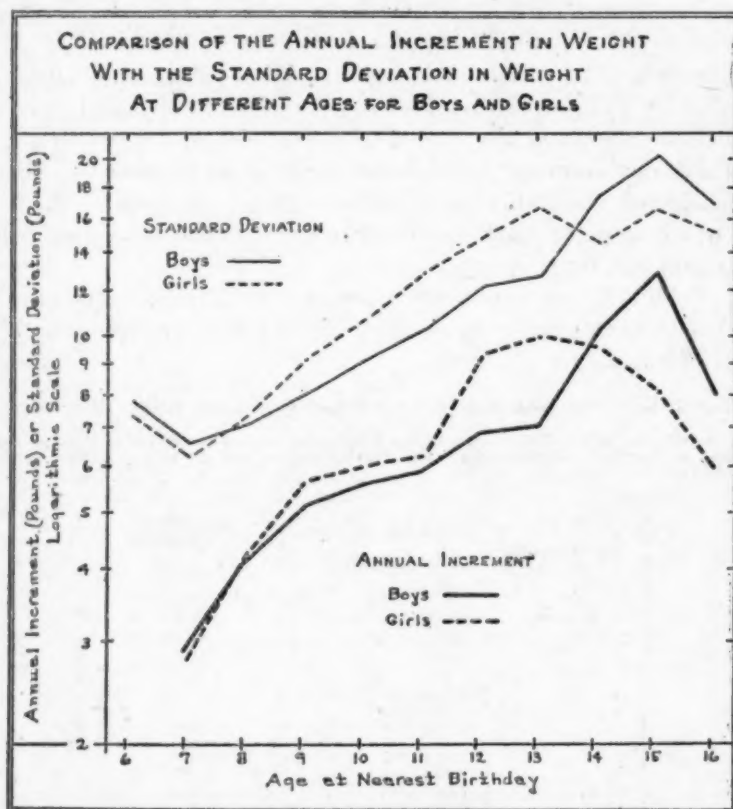


Fig. 5.

#### RATE OF GROWTH AND VARIATION IN WEIGHT.

It is of interest to inquire the reasons for the greater variation in weight at certain ages. While it might be due in part to a greater percentage of abnormal children at certain ages who may vary more from the mean than the normal children, the rapidity of growth as expressed by the mean annual increment in weight is definitely associated with variation in weight, as shown in Figure 5.



A comparison of the mean annual increment (see Table VIII) with the standard deviation (see Table IX) for the same sex shows this correlation in a more striking manner. The variation in weight seems to increase or decrease with the mean annual increment. That is to say, children vary most in weight at the periods of the most rapid increase in weight.

These differences from the point of view of sex are also striking. The degree of variation in weight for boys and girls of the same age

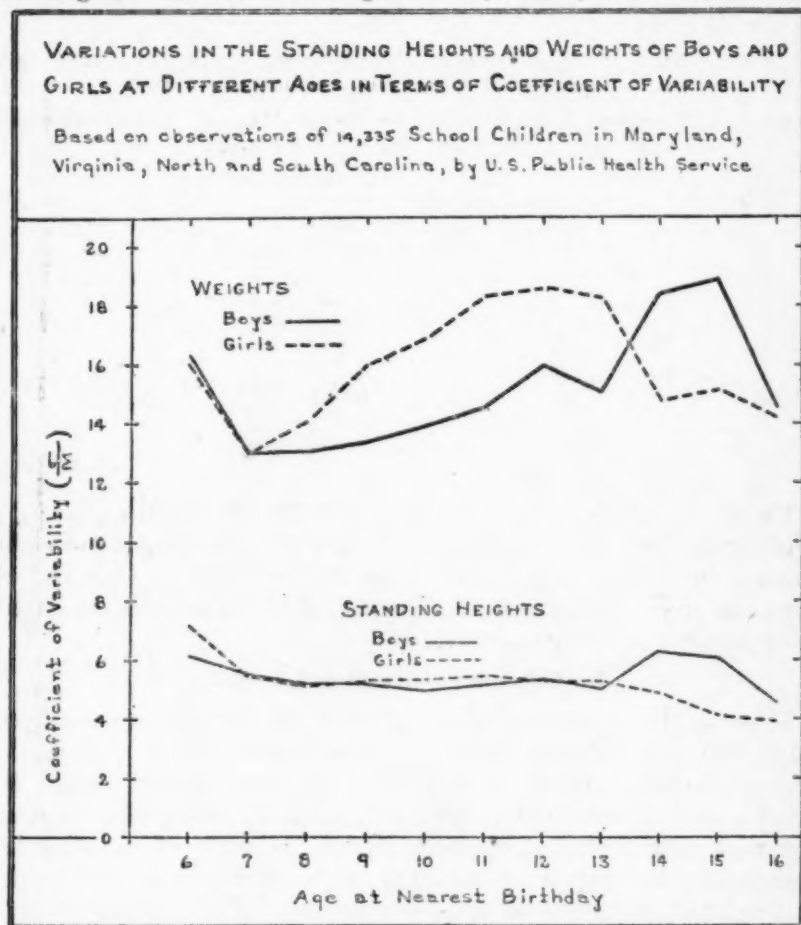


Fig. 6.

is by no means the same as the standard deviations (see Table IX and Figure 5, upper curves) clearly indicate. The same sort of differences between the sexes is shown when the annual increment in pounds is compared. (See Table VIII and Figure 5, lower curves.)

#### RELATION OF HEIGHT TO VARIATIONS IN WEIGHT.

In comparing the degree of variation in weights for boys and girls the factor of height must also be considered. The degree of variation

as expressed by the coefficient of variability is plotted for weights and heights for either sex in Figure 6.

Since the two sets of curves are quite different in some respects, an attempt has been made to see what the coefficients of variability in weight would be if no variation in heights had existed. This has been done by a method of averaging the coefficients of variability in weight for children of a given age at each inch of height, a method which is admittedly somewhat crude but accurate enough for the purpose in view.<sup>a</sup>

TABLE X.—*Variation in weights\* of boys and girls of the same age, after eliminating (roughly) the effect of variation in height.*

As expressed by the weighted averages of the coefficients of variability for weight at each inch of height.

Age at nearest birth-day.	Averages of the coefficients of variability.	
	Boys.	Girls.
6.....	8.48	8.55
7.....	9.06	8.39
8.....	8.99	8.73
9.....	8.65	10.74
10.....	9.49	11.25
11.....	9.95	12.01
12.....	10.28	12.15
13.....	10.40	12.60
14.....	10.51	13.30
15.....	9.66	12.68
16.....	9.04	11.50

The results given in Table X are shown graphically in Figure 7.

It appears that girls over 8 years of age vary with respect to weight in a considerably greater degree than boys of the same age and of the same approximate height. The degree of variation is somewhat more pronounced after the age of 13.

### III. Correlation of Height and Weight.

Thus far the children of given age and sex have been considered from two standpoints: First, as constituting groups, using the average (mean) heights and weights of different sex-age groups for making comparisons; and, second, as individuals, using the standard deviation and coefficient of variability as measures of variation for determining the degree individual children differ in respect of height and weight. It now remains to consider the differences occurring in individual children in each group from the point of view of the relation of variation in height to variation in weight. That is, how closely do variations in height correspond to variations in weight among children of different ages and sexes? Obviously, if there is a very close relationship, there must be a marked uniformity in the

<sup>a</sup> See appendix, Tables XV and XVI, for the coefficients of variability at each height. The coefficients of variability in weight of children of a given age increase little, if any, with increase in height. It therefore seemed feasible to average these coefficients for a given age group in order to get an expression of the average relative variation in weight of children of any given height for that age.

weight of children, taking height into account; if there is not a very marked relationship, children of a given height, age, and sex will differ widely in weight. The importance of this phase of the discussion does not lie so much in demonstrating the fact that a relationship of this kind exists, since in the very nature of things it must exist, as in discovering the differences in degree of correlation for the various sex and age groups.

#### COEFFICIENT OF CORRELATION.

A comparison of this kind would be a very detailed and difficult task if no single measure of the relationship between the degree of

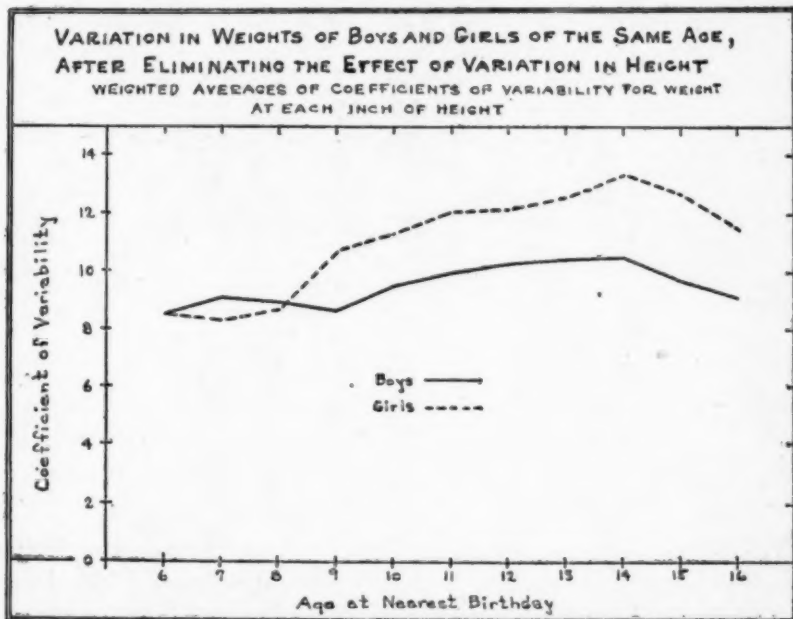


Fig. 7.

the two variations could be used. Such a statistical measure exists in the coefficient of correlation and the correlation ratio. When this coefficient or ratio is zero there is no relationship whatsoever. When it is 1, or unity, the relationship is perfect; that is, the variation in one (e. g., height) is accompanied by exactly the same variation, relatively, in the other (e. g., weight). The nearer unity, the closer the relationship between the two variables.<sup>7</sup>

<sup>7</sup> The coefficient of correlation ( $r$ ) is the generally used statistical measure of linear or straight line correlation between two variables. If the items (individuals) are plotted with heights as ordinates and weights as abscissae, and the points (or the means of the weights at the different heights) tend to fall along a straight line, the correlation is said to be linear. But if the points tend to fall along a curved line, the correlation is said to be nonlinear and, under certain conditions, the correlation ratio ( $\eta$ ) is a better measure of the correlation between the two variables. If the ratio ( $\eta$ ) is significantly larger than the coefficient ( $r$ ), it is an indication of nonlinearity.

In the case of the heights and weights of children in this study, the differences between the correlation ratio and the coefficient are not marked except at a few ages, but in practically every instance they are found to be significant if Blakeman's criterion of nonlinearity is applied. That is, the correlation ratio is a more nearly accurate expression of correlation than the coefficient for the material used in this study.

The correlation ratios as well as the coefficients of correlation for heights and weights of boys and girls at each age are given in Table XI, together with their probable errors. (Editor's note: The correlation tables are not given here, but will be published with the reprint of this article.)

TABLE XI.—*Correlation of standing heights and weights of native white children in Maryland, Virginia, North and South Carolina.*

Age at nearest birthday.	Correlation ratio of weight on height ( $\eta$ ).	Coefficient of correlation ( $r$ ).
<b>BOYS.</b>		
6.....	0.830 $\pm$ 0.0108	0.782 $\pm$ 0.0134
7.....	.704 $\pm$ .0125	.603 $\pm$ .0157
8.....	.718 $\pm$ .0109	.682 $\pm$ .0120
9.....	.744 $\pm$ .0101	.643 $\pm$ .0133
10.....	.720 $\pm$ .0104	.603 $\pm$ .0113
11.....	.726 $\pm$ .0108	.657 $\pm$ .0130
12.....	.736 $\pm$ .0111	.706 $\pm$ .0121
13.....	.720 $\pm$ .0125	.687 $\pm$ .0137
14.....	.816 $\pm$ .0104	.795 $\pm$ .0114
15.....	.853 $\pm$ .0110	.842 $\pm$ .0118
16.....	.784 $\pm$ .0225	.736 $\pm$ .0244
<b>GIRLS.</b>		
6.....	0.788 $\pm$ 0.0136	0.675 $\pm$ 0.0195
7.....	.725 $\pm$ .0118	.679 $\pm$ .0134
8.....	.751 $\pm$ .0101	.719 $\pm$ .0111
9.....	.724 $\pm$ .0107	.661 $\pm$ .0127
10.....	.709 $\pm$ .0110	.660 $\pm$ .0125
11.....	.695 $\pm$ .0120	.647 $\pm$ .0135
12.....	.719 $\pm$ .0115	.703 $\pm$ .0120
13.....	.707 $\pm$ .0128	.669 $\pm$ .0141
14.....	.692 $\pm$ .0153	.643 $\pm$ .0172
15.....	.543 $\pm$ .0282	.427 $\pm$ .0303
16.....	.562 $\pm$ .0296	.565 $\pm$ .0310

As may be expected, in all instances the correlation is high and, from the point of view of the probable error, significant. The degree of correlation, however, varies considerably in the different ages and as between boys and girls. These differences are not merely accidental, but indicate definite trends. In order to visualize the differences the correlation ratios have been plotted in Figure 8.

The correlation of height and weight is quite high at 6 years of age for both boys and girls in this particular group of children. From 7 to 13 years of age the correlation for both sexes is lower and similar, although that for the girls is slightly lower after 8 years than for boys. After the age of 13 there is a marked divergence, the correlation for boys being quite high and that for girls relatively low.

Stated in other words, the weights of both boys and girls vary in pretty much the same way as do the heights in the ages under the age of 14, the taller the children the more they weigh according to a fairly constant ratio; but in the ages 14 to 16, height or weight appear to be affected to a markedly greater extent by some other factor or factors.

## VARIATION IN WEIGHT PER INCH OF VARIATION IN HEIGHT.

This may be expressed more exactly by stating the variation in weight (pounds) per inch of variation in height at each age, as shown in Table XII, and graphically in Figure 9.<sup>a</sup>

TABLE XII.—*Variation in weight (pounds) per inch of variation in height compared for boys and girls at different ages.*

Coefficient of regression of weight on height of native white children of Maryland, Virginia, North and South Carolina by sex and age.

Age at nearest birthday.	Coefficient of regression of weight on height (pounds).	
	Boys.	Girls.
6.....	2.19	1.52
7.....	1.53	1.68
8.....	1.91	2.15
9.....	1.92	2.27
10.....	2.38	2.52
11.....	2.41	2.79
12.....	2.91	3.44
13.....	3.02	3.48
14.....	3.66	3.16
15.....	4.46	2.69
16.....	4.24	3.70

From 7 to 13 years, inclusive, the variation in weight per inch of variation in height was less among boys than girls; at 6, 14, 15, and 16 years of age the opposite was true.

## IV. Summary.

1. The basis of this study consists of height and weight measurements of 14,335 native white school children from 6 to 16 years of age made by officers of the United States Public Health Service in representative localities of Maryland, Virginia, and North and South Carolina.

2. The mean heights of the girls 11 to 14 years of age, inclusive, and the mean weights of the girls 12 to 14 years, inclusive, are greater than those of the boys of the same ages. At the other ages studied the boys are taller and heavier than the girls. The weight-height index (weight per inch of height) of the girls exceeds that of the boys from 12 to 14 years and is equal at 15 years; at the other ages studied, it is greater for boys than for girls.

3. The annual increment in weight of the girls exceeds that of the boys from 8 to 13 years, inclusive. At the other ages studied it is greater for boys. However, when the annual increment in weight

<sup>a</sup> The coefficient of regression of weight on height (computed from the coefficient of correlation ( $r$ ) for a given age indicates the average difference in weight (pounds) per inch of difference in height.



per inch of increment in height is considered, it is found greater for girls than boys at every age after 6, except 10 years.

4. Variations in height and in weight differ markedly for different sex-age groups and are closely associated with the rate of increase in weight. When variation in weight is considered independently of variation in height, the boys 14 to 16 years of age vary considerably more in weight than the girls of the same age. But when the effect of variation in height is eliminated, the girls vary more in weight than the boys of the same age at all ages above 8 years. In other

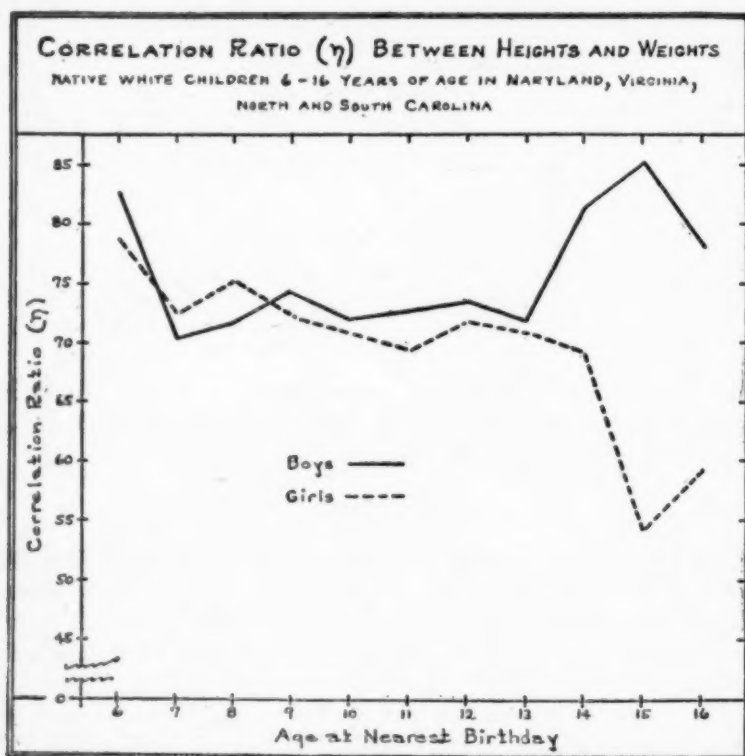


Fig. 8.

words, girls after 8 years of age vary more in weight than boys of the same age and height.

5. Correlation between heights and weights was found to be lower for the girls than for the boys at all ages above 8 years and markedly lower after 13 years of age.

#### V. Height-Weight Tables.

Since it appears that variability in weight differs with sex, age, and height, it seems that averages which best represent a group of children are those which take all of these factors into account. It there-

fore seemed best to present the final results of the study as average weights of boys and girls of each age, by height groups. A series of mean weights was therefore computed independently for children at each year of age and at each inch of height. In order to approximate the true average weights which would be the result of measuring an infinite number of children, it was necessary to smooth the weights computed independently. Smoothed averages were derived from data shown in the tables<sup>9</sup> in the appendix by a formula from the

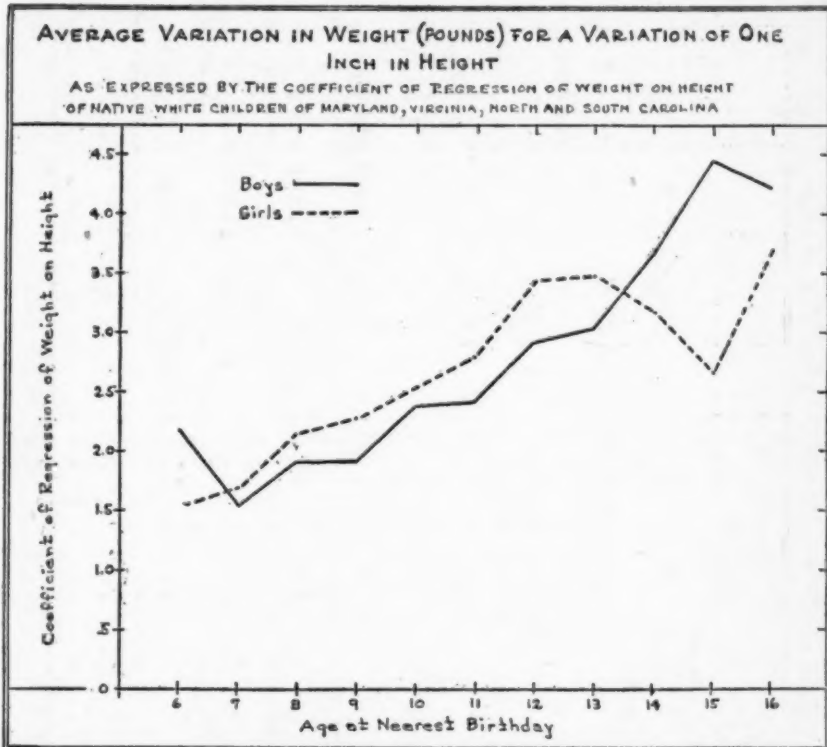


Fig. 9.

method of least squares, which give a series of weights representing the most probable smooth curve which could be constructed from the data.<sup>10</sup> The smoothed averages are shown in Tables XIII and XIV.

<sup>9</sup> The actual average weights, the standard deviations, and the coefficients of variability are given by single-year age groups and single inch-height classes in appendix Tables XV and XVI. The number of children whose measurements were considered in making up each average is also shown.

<sup>10</sup> Let  $Y$  = weight and  $X$  = height; then it was assumed that at any given height,  $X$ ,  $Y = a + bx + cx^2 + dx^3$ . The coefficients  $a$ ,  $b$ ,  $c$ , and  $d$  were evaluated by the method of least squares for each sex and age, and the smoothed weights were computed by substituting in the original equation.

TABLE XIII.—Smoothed average weights for each inch of height of native white school-boys in Maryland, Virginia, and North and South Carolina, ages 6 to 16 years, inclusive, for each year of age.

[illegible]

TABLE XIV.—Smoothed average weights for each inch of height of native white school-girls in Maryland, Virginia, and North and South Carolina, ages 6 to 16 years, inclusive, for each year of age.

[illegible]

No attempt was made to carry the smoothed mean weight series to the extreme limits of heights. In the first place reliable averages could not be computed because of the relatively small number of children observed. In the second place averages would probably not be good criteria of the correct weights of extremely short or extremely tall children, inasmuch as those who vary so widely in height from the mean could not be assumed to conform to any computed or assumed mean weights. It is not claimed, however, that this table reaches the limits of normality, especially in the older ages; but it appeared better to keep within safe limits where the data could be relied upon than to try to make a complete table if it were necessary to use unreliable figures for the extremes.

It is suggested that this table, which is based on measurements of native white children in four representative Southern States, might serve as a table of correct weights among such children of the South. The usual tables of this sort are based on measurements of children of various racial stocks or distinctly selected groups of children, and it would seem that a table, based on measurements of children of a single race stock from one section of the country, would better represent the white children of that section. It should be borne in mind, however, that the older ages, particularly the 16-year-old boys, probably are not representative, because of the small number considered and selection due to children dropping out of school.

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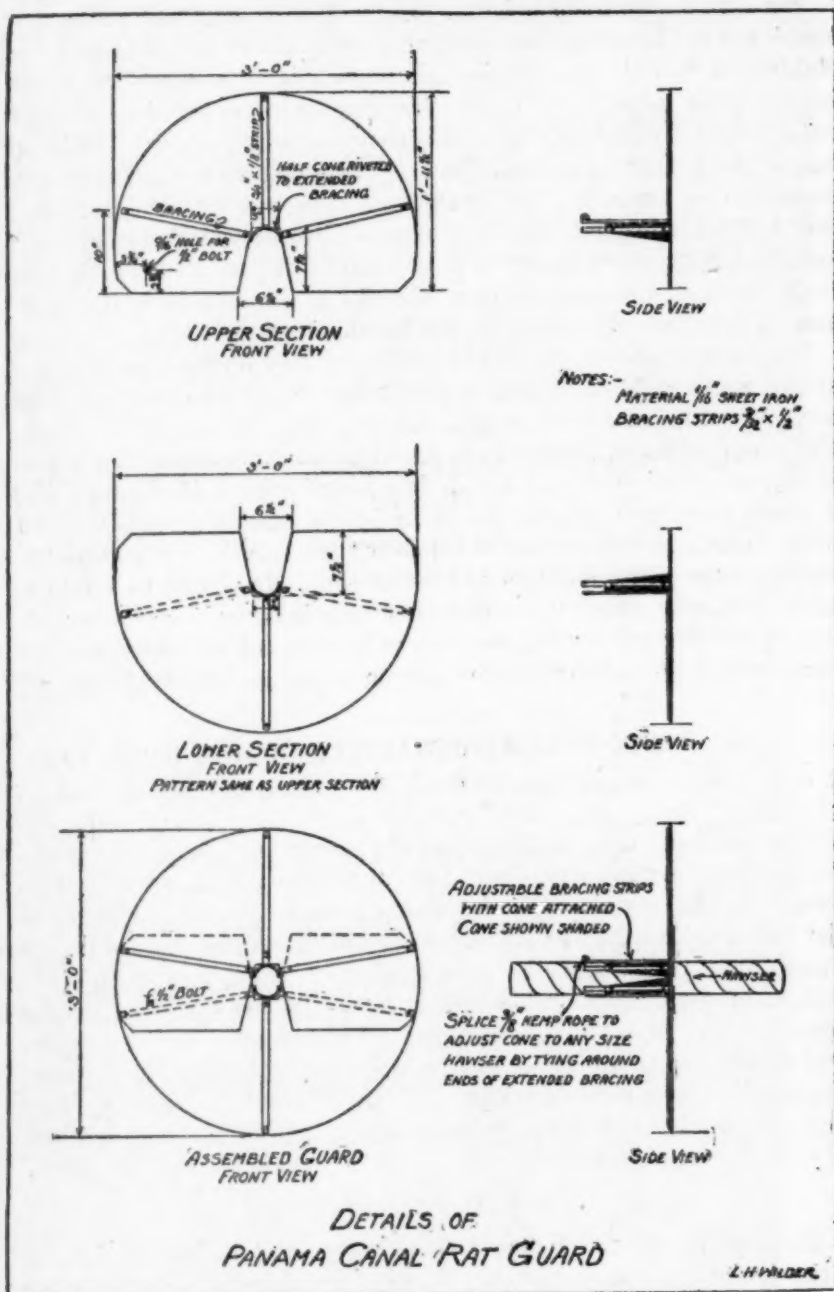
### THE PANAMA CANAL RAT GUARD.

By W. C. RUCKER, Surgeon, United States Public Health Service; Chief Quarantine Officer, Panama Canal.

The world diffusion of plague and the ever present danger from rats being carried from port to port by ships constitute a serious health hazard at the Panama Canal. Every possible precaution is therefore taken to prevent the embarkation and disembarkation of rats in Canal Zone ports, and the rat-guarding of ships thus becomes a matter of very considerable importance. To meet a need in this regard, with respect to one route of communication between shore and shipboard, there has been developed an extremely efficient and practical rat guard for ships' lines. Many of its features are not new and are simply improvements and adaptations of the best features of other forms of guards.

#### SPECIAL FEATURES.

The rigidity of the Panama Canal rat guard is insured by the straps, which are riveted to it. These turn sharply at right angles and hold the guard perpendicular to the line. They are riveted to half-cones, which permit the guard to fit any line accurately. The lashing is a permanent part of the guard. The guard is painted to







A. The Panama Canal rat guard. The strap-iron reinforcements give it rigidity and hold it perpendicular to the line. The lashing is a permanent part of the guard, and the half-cones make it fit any line accurately. It is easily and quickly applied and light enough to facilitate handling.



B. Panama Canal rat guard at left; ordinary rat guard at right.

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protect it from the weather. It is not bent easily. It weighs 30 pounds and is easily handled. The cost is \$4.70, as shown by the following list of materials and prices:

*Material.*

26½ pounds (one-half sheet) iron, galvanized, 36 by 96 inches, 18 gage, at \$8.61 Cost.	
per hundred weight.....	\$2. 29
4 pounds (12 feet) strap iron, galvanized, ½ by ¾ inch, at \$11.63 per hundred-weight.....	. 47
20 rivets, ½ by ½ inch, galvanized.....	. 05
6 feet rope, ½-inch.....	. 06
	<hr/>
Labor.....	2. 87
	<hr/>
- Total.....	4. 70

## OHIO LAWS CREATING HEALTH DISTRICTS HELD CONSTITUTIONAL.<sup>1</sup>

The Hughes Health Act and the Griswold Health Act, passed by the Ohio Legislature in 1919, and under the terms of which each city in the State is constituted a city health district and the townships and villages in each county are combined into a general health district, have been declared constitutional by the Supreme Court of Ohio.

## PHYSICIAN FINED FOR ISSUING IMPROPER SCHOOL CERTIFICATES.

According to the Weekly Bulletin of the New York City Department of Health, a physician in New York City was recently fined for issuing certificates allowing the return to school of two children, one of whom had been reported to the health department but two days previously as suffering from scarlet fever, and the other a brother who had been exposed to the case. The certificates stated that "they may return to school without any menace to other children."

## DEATHS DURING WEEK ENDED MAY 6, 1922.

*Summary of information received by telegraph from industrial insurance companies for week ended May 6, 1922, and corresponding week, 1921. (From the Weekly Health Index, May 9, 1922, issued by the Bureau of the Census, Department of Commerce.)*

	Week ended May 6, 1922.	Corresponding week, 1921.
Policies in force.....	49, 715, 225	46, 215, 876
Number of death claims.....	9, 418	8, 279
Death claims per 1,000 policies in force, annual rate.....	9. 9	9. 3

<sup>1</sup> State *ex rel.* Village of Cuyahoga Heights v. Zangerle, County Auditor, and State *ex rel.* City of West Park v. Same, 134 N. E. 696.

Deaths from all causes in certain large cities of the United States during the week ended May 6, 1922, infant mortality, annual death rate, and comparison with corresponding week of 1921. (From the Weekly Health Index, May 9, 1922, issued by the Bureau of the Census, Department of Commerce).

City.	Estimated population July 1, 1922.	Week ended May 6, 1922.		Annual death rate per 1,000, corresponding week, 1921.	Deaths under 1 year.		Infant mortality rate, week ended May 6, 1922. <sup>1</sup>
		Total deaths.	Death rate. <sup>2</sup>		Week ended May 6, 1922.	Corresponding week, 1921.	
Total.....	27,855,509	7,129	13.3	11.9	972	903	.....
Akron, Ohio.....	208,435	42	10.5	7.3	8	4	85
Albany, N. Y.....	116,223	40	17.9	14.5	6	4	135
Atlanta, Ga.....	220,047	52	12.3	13.3	7	8	.....
Baltimore, Md.....	762,222	209	14.3	13.5	20	32	56
Birmingham, Ala.....	191,017	48	13.1	16.2	3	14	.....
Boston, Mass.....	764,017	236	16.1	14.4	43	31	115
Bridgeport, Conn.....	143,555	35	12.7	9.7	5	7	62
Buffalo, N. Y.....	528,163	133	13.1	13.1	20	10	79
Cambridge, Mass.....	110,944	27	12.7	12.3	2	4	37
Camden, N. J.....	121,915	33	14.1	12.6	9	5	138
Chicago, Ill.....	2,833,288	688	12.7	10.8	118	92	.....
Cincinnati, Ohio.....	404,865	116	14.9	13.7	10	11	67
Cleveland, Ohio.....	854,003	166	10.1	9.3	40	40	103
Columbus, Ohio.....	253,453	76	15.6	11.9	14	6	148
Dallas, Tex.....	171,974	37	11.2	10.4	3	6	.....
Dayton, Ohio.....	161,824	37	11.9	10.6	5	4	85
Denver, Colo.....	267,591	67	13.1	11.3	4	9	.....
Detroit, Mich.....	993,678	245	12.9	10.6	47	56	90
Fall River, Mass.....	120,790	43	18.6	13.8	6	9	84
Fort Worth, Tex.....	114,717	23	10.5	.....	2	.....	.....
Grand Rapids, Mich.....	143,572	34	12.3	7.4	7	3	117
Houston, Tex.....	150,087	28	9.7	8.3	5	3	.....
Indianapolis, Ind.....	333,257	109	17.1	14.1	10	12	76
Jersey City, N. J.....	305,911	71	12.1	13.8	6	11	38
Kansas City, Kans.....	105,688	21	10.4	13.6	3	4	69
Kansas City, Mo.....	343,988	113	17.1	13.8	16	11	.....
Los Angeles, Calif.....	634,866	193	15.9	12.2	20	11	83
Louisville, Ky.....	236,877	67	14.7	11.5	11	4	119
Lowell, Mass.....	114,423	35	16.0	13.3	6	5	101
Memphis, Tenn.....	167,862	56	17.4	12.3	7	6	.....
Milwaukee, Wis.....	476,603	117	12.8	9.0	27	15	132
Minneapolis, Minn.....	400,970	85	11.1	11.0	7	6	38
Nashville, Tenn.....	122,832	34	14.4	11.5	1	3	.....
New Bedford, Mass.....	127,542	34	15.5	10.0	7	6	104
New Haven, Conn.....	169,987	39	12.0	14.1	8	8	98
New Orleans, La.....	399,616	124	16.2	15.9	18	15	.....
New York, N. Y.....	5,839,746	1,508	13.5	11.8	197	200	76
Newark, N. J.....	431,792	93	11.2	12.9	10	12	44
Norfolk, Va.....	124,915	19	7.9	10.3	5	3	89
Oakland, Calif.....	233,279	42	9.4	7.6	6	4	76
Omaha, Nebr.....	200,739	57	14.8	15.9	8	8	96
Paterson, N. J.....	138,521	27	10.2	10.2	1	2	15
Philadelphia, Pa.....	1,894,500	487	13.4	11.7	49	43	58
Pittsburgh, Pa.....	607,902	178	15.3	16.2	30	25	96
Portland, Oreg.....	269,240	78	15.1	10.0	8	5	79
Providence, R. I.....	241,011	63	13.6	11.3	8	7	63
Richmond, Va.....	178,335	47	13.7	11.0	4	6	49
Rochester, N. Y.....	311,548	75	12.6	14.4	10	16	77
St. Louis, Mo.....	795,008	182	11.9	10.9	14	16	.....
St. Paul, Minn.....	239,833	53	12.0	11.2	2	4	19
Salt Lake City, Utah.....	123,918	22	9.3	11.6	3	4	45
San Francisco, Calif.....	529,792	148	14.6	13.6	11	11	63
Seattle, Wash.....	315,312	75	12.4	11.8	6	5	51
Spokane, Wash.....	104,445	22	11.0	12.5	5	1	107
Springfield, Mass.....	140,052	32	11.9	13.0	6	6	89
Syracuse, N. Y.....	181,012	56	16.1	12.1	11	9	132
Toledo, Ohio.....	260,717	61	12.2	10.7	4	7	39
Trenton, N. J.....	125,075	32	13.3	10.6	6	3	92
Washington, D. C.....	437,571	125	14.9	12.5	16	12	92
Wilmington, Del.....	115,598	16	7.2	10.1	1	3	19
Worcester, Mass.....	188,449	40	13.6	14.1	10	5	108
Yonkers, N. Y.....	105,422	28	13.8	7.6	3	2	63
Youngstown, Ohio.....	144,970	32	11.5	12.3	7	12	92

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1921. Cities left blank are not in the registration area for births.

<sup>3</sup> Enumerated population Jan. 1, 1920.

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended May 13, 1922.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		CALIFORNIA—continued.	
	Cases.		Cases.
Chicken pox.....	17	Measles.....	33
Diphtheria.....	6	Scarlet fever.....	126
Hookworm disease.....	28	Smallpox.....	28
Malaria.....	18	Typhoid fever.....	9
Measles.....	4		
Pellagra.....	2		
Scarlet fever.....	2		
Smallpox.....	20		
Tuberculosis.....	10		
Typhoid fever.....	11		
Whooping cough.....	4		
ARKANSAS.		COLORADO.	
		(Exclusive of Denver.)	
Chicken pox.....	1	Chicken pox.....	19
Diphtheria.....	4	Diphtheria.....	15
Influenza.....	10	Influenza.....	1
Malaria.....	73	Measles.....	2
Measles.....	5	Mumps.....	8
Pellagra.....	6	Pneumonia.....	12
Scarlet fever.....	1	Poliomyelitis.....	1
Smallpox.....	1	Scarlet fever.....	27
Tuberculosis.....	7	Septic sore throat.....	1
Typhoid fever.....	1	Smallpox.....	8
Whooping cough.....	8	Tuberculosis.....	53
		Typhoid fever.....	2
		Typhus fever.....	1
		Whooping cough.....	35
CALIFORNIA.		DELAWARE.	
Cerebrospinal meningitis:		Anthrax—Wilmington.....	1
Los Angeles.....	1	Chicken pox.....	10
Los Angeles County.....	1	Diphtheria.....	1
Riverside.....	1	Influenza.....	1
Diphtheria.....	113	Pneumonia.....	4
Influenza.....	20	Scarlet fever:	
Leprosy—San Francisco.....	1	Wilmington.....	12
Lethargic encephalitis:		Scattering.....	3
Fresno.....	1	Tuberculosis.....	3
Los Angeles.....	2	Typhoid fever.....	3
San Rafael.....	1		
Santa Clara.....	1		
Vallejo.....	1		
		FLORIDA.	
		Diphtheria.....	26
		Influenza.....	35
		Malaria.....	22
		Pneumonia.....	49

## FLORIDA—continued.

	Cases.
Scarlet fever.....	1
Smallpox.....	20
Typhoid fever.....	17

## GEORGIA.

Cerebrospinal meningitis.....	1
Chicken pox.....	2
Diphtheria.....	8
Dysentery (bacillary).....	4
German measles.....	1
Hookworm disease.....	4
Influenza.....	8
Malaria.....	30
Measles.....	3
Mumps.....	3
Pellagra.....	1
Pneumonia.....	7
Scarlet fever.....	4
Smallpox.....	15
Tuberculosis (pulmonary).....	3
Typhoid fever.....	10
Whooping cough.....	31

## ILLINOIS.

Cerebrospinal meningitis—Chicago.....	1
Diphtheria:	
Chicago.....	102
Scattering.....	55
Influenza.....	15
Pneumonia.....	313
Scarlet fever:	
Chicago.....	83
Oak Park.....	12
Rockford.....	10
Scattering.....	65
Smallpox:	
Peoria.....	14
Scattering.....	32
Typhoid fever:	
Kewanee.....	18
Scattering.....	25
Whooping cough.....	97

## INDIANA.

Diphtheria.....	30
Rabies in animals:	
Decatur County.....	1
Putnam County.....	1
Sullivan County.....	1
Vigo County.....	1
Scarlet fever.....	31
Smallpox.....	19
Typhoid fever.....	2

## IOWA.

Diphtheria.....	8
Scarlet fever.....	34
Smallpox.....	33

## KANSAS.

Cerebrospinal meningitis.....	2
Chicken pox.....	73
Diphtheria.....	33
German measles.....	2
Influenza.....	15
Measles.....	18

## KANSAS—continued.

	Cases.
Mumps.....	24
Pneumonia.....	17
Scarlet fever.....	35
Smallpox.....	20
Tetanus.....	1
Trachoma.....	1
Tuberculosis.....	80
Typhoid fever.....	8
Whooping cough.....	18

## LOUISIANA.

Diphtheria.....	6
Influenza.....	13
Scarlet fever.....	3
Smallpox.....	13
Typhoid fever.....	10

MARYLAND.<sup>1</sup>

Chicken pox.....	69
Diphtheria.....	20
Dysentery.....	1
German measles.....	6
Influenza.....	22
Lethargic encephalitis.....	1
Measles.....	351
Mumps.....	119
Pneumonia (all forms).....	60
Scarlet fever.....	50
Septic sore throat.....	3
Tuberculosis.....	72
Typhoid fever.....	10
Whooping cough.....	21

## MASSACHUSETTS.

Cerebrospinal meningitis.....	3
Chicken pox.....	100
Conjunctivitis (suppurative).....	9
Diphtheria.....	125
Dysentery.....	2
German measles.....	34
Influenza.....	9
Lethargic encephalitis.....	12
Malaria.....	2
Measles.....	1,025
Mumps.....	124
Ophthalmia neonatorum.....	11
Pellagra.....	2
Pneumonia (lobar).....	117
Scarlet fever.....	153
Septic sore throat.....	4
Trachoma.....	1
Tuberculosis (all forms).....	137
Typhoid fever.....	10
Whooping cough.....	93

## MINNESOTA.

Cerebrospinal meningitis.....	8
Chicken pox.....	33
Diphtheria.....	47
Influenza.....	8
Measles.....	113
Pneumonia.....	16
Scarlet fever.....	116
Smallpox.....	57
Tuberculosis.....	125
Typhoid fever.....	5
Whooping cough.....	5

<sup>1</sup> Week ended Friday.



MISSOURI.		NEW MEXICO—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	2	Pneumonia.....	4
Chicken pox.....	33	Scarlet fever.....	5
Diphtheria.....	31	Smallpox.....	3
Epidemic sore throat.....	7	Tuberculosis.....	28
Influenza.....	8	Whooping cough.....	1
Measles.....	34		
Mumps.....	22	NEW YORK.	
Pneumonia.....	20	(Exclusive of New York City.)	
Scarlet fever.....	33	Cerebrospinal meningitis.....	1
Smallpox.....	26	Diphtheria.....	107
Tetanus.....	1	Influenza.....	43
Trachoma.....	3	Lethargic encephalitis.....	4
Tuberculosis.....	88	Measles.....	723
Typhoid fever.....	9	Pneumonia.....	317
Whooping cough.....	13	Poliomyelitis.....	1
		Scarlet fever.....	277
MONTANA.		Tetanus.....	1
Diphtheria.....	6	Typhoid fever.....	24
Rocky Mountain spotted or tick fever:		Whooping cough.....	194
Broadview.....	1		
Grassrange.....	1	NORTH CAROLINA.	
Lo Lo.....	1	Chicken pox.....	103
Union.....	1	Diphtheria.....	24
Scarlet fever.....	11	Measles.....	65
Smallpox.....	14	Scarlet fever.....	14
Typhoid fever.....	1	Smallpox.....	29
		Typhoid fever.....	12
NEBRASKA.		Whooping cough.....	182
Chicken pox.....	26		
Diphtheria.....	13	OREGON.	
Measles:		Chicken pox.....	14
Lincoln.....	66	Diphtheria:	
Omaha.....	23	Portland.....	11
Schuyler.....	11	Scattering.....	2
Scattering.....	7	Influenza.....	4
Mumps.....	20	Pneumonia.....	19
Scarlet fever.....	29	Poliomyelitis.....	1
Smallpox:		Scarlet fever:	
Scottsbluff.....	9	Portland.....	10
Scattering.....	24	Scattering.....	3
Typhoid fever.....	2	Septic sore throat.....	1
Whooping cough.....	5	Smallpox.....	3
		Tuberculosis.....	15
NEW JERSEY.			
Anthrax.....	1	SOUTH DAKOTA.	
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis.....	1
Chicken pox.....	110	Chicken pox.....	26
Diphtheria.....	123	Diphtheria.....	3
Influenza.....	11	Measles.....	19
Malaria.....	1	Pneumonia.....	4
Measles.....	1, 153	Scarlet fever.....	14
Pneumonia.....	129	Smallpox.....	3
Scarlet fever.....	215	Trachoma.....	2
Smallpox.....	1	Tuberculosis.....	7
Typhoid fever.....	11	Typhoid fever.....	1
Typhus fever.....	1		
Whooping cough.....	143		
		TEXAS.	
NEW MEXICO.		Diphtheria.....	18
Chicken pox.....	3	Influenza.....	21
Conjunctivitis.....	1	Measles.....	100
Diphtheria:		Pellagra.....	10
Albuquerque.....	8	Pneumonia.....	19
Scattering.....	12	Smallpox.....	75
Influenza.....	8	Typhoid fever.....	6
Mumps.....	4		

<sup>1</sup> Deaths.

VERMONT.		WISCONSIN—continued.	
	Cases.		Cases.
Chicken pox.....	19	Milwaukee—Continued.	
Diphtheria.....	5	Pneumonia.....	13
Measles.....	38	Scarlet fever.....	8
Mumps.....	6	Smallpox.....	8
Pneumonia.....	1	Tuberculosis.....	13
Scarlet fever.....	29	Whooping cough.....	100
Smallpox.....	1	Scattering:	
Whooping cough.....	9	Cerebrospinal meningitis.....	2
WASHINGTON.		Chicken pox.....	73
Cerebrospinal meningitis—Grant County....	1	Diphtheria.....	24
Chicken pox.....	45	German measles.....	15
Diphtheria.....	23	Influenza.....	115
Measles.....	5	Measles.....	14
Mumps.....	32	Pneumonia.....	9
Scarlet fever.....	7	Poliomyelitis.....	1
Smallpox.....	18	Scarlet fever.....	68
Tuberculosis.....	16	Smallpox.....	42
Typhoid fever.....	3	Tuberculosis.....	36
Whooping cough.....	38	Typhoid fever.....	5
WEST VIRGINIA.		Whooping cough.....	65
Diphtheria.....	10	WYOMING.	
Poliomyelitis—Morgantown.....	2	Anthrax—Converse.....	1
Scarlet fever.....	11	Chicken pox.....	1
Smallpox.....	5	Diphtheria.....	1
Tuberculosis.....	12	Mumps.....	4
WISCONSIN.		Pneumonia.....	5
Milwaukee:		Rocky Mountain spotted or tick fever—Big	
Chicken pox.....	50	Horn.....	2
Diphtheria.....	7	Scarlet fever.....	3
German measles.....	14	Smallpox.....	4
Influenza.....	1	Tuberculosis.....	3
Measles.....	5	Typhoid fever.....	2
		Whooping cough.....	5

## Delayed Reports for Week Ended May 6, 1922.

ALABAMA.		COLORADO—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	1	Smallpox.....	5
Chicken pox.....	29	Tuberculosis.....	36
Diphtheria.....	3	Typhoid fever.....	1
Hookworm disease.....	104	Vincent's angina.....	2
Influenza.....	24	DISTRICT OF COLUMBIA.	
Malaria.....	21	Chicken pox.....	44
Measles.....	5	Diphtheria.....	16
Ophthalmia neonatorum.....	1	Influenza.....	1
Pellagra.....	3	Lethargic encephalitis.....	1
Pneumonia.....	2	Measles.....	14
Poliomyelitis.....	1	Scarlet fever.....	8
Scarlet fever.....	11	Smallpox.....	1
Smallpox.....	20	Tuberculosis.....	31
Tuberculosis.....	36	Whooping cough.....	14
Typhoid fever.....	8	KENTUCKY.	
Whooping cough.....	6	Chicken pox.....	4
COLORADO.		Diphtheria.....	13
(Exclusive of Denver.)		Influenza.....	8
Chicken pox.....	11	Mca les.....	15
Diphtheria.....	13	Pneumonia:	
Impetigo contagiosa.....	4	Jefferson County.....	9
Measles.....	2	Scattering.....	4
Mumps.....	3	Scarlet fever.....	2
Pneumonia.....	4	Septic sore throat.....	1
Scarlet fever.....	19	Smallpox.....	4
Septic sore throat.....	1	Trachoma.....	1

KENTUCKY—continued.		WYOMING.	
	Cases.		Cases.
Tuberculosis:		Cerebrospinal meningitis.....	1
Jefferson County.....	17	Chicken pox.....	2
Scattering.....	3	Influenza.....	19
Typhoid fever.....	4	Mumps.....	3
Whooping cough.....	2	Pneumonia.....	8
MAINE.		Rocky Mountain spotted or tick fever:	
Chicken pox.....	4	Big Horn.....	1
Diphtheria.....	7	Fremont.....	2
German measles.....	1	Hot Springs.....	1
Measles.....	2	Scarlet fever.....	5
Mumps.....	1	Smallpox.....	4
Pneumonia.....	7	Tuberculosis.....	7
Scarlet fever.....	32	Typhoid fever.....	3
Septic sore throat.....	1	Whooping cough.....	4
Tuberculosis.....	13		
Typhoid fever.....	4		
Whooping cough.....	4		

### SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Fellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1922.										
Arizona (February).....		24			5			15	16	1
Arkansas (April).....		14	550	132	58	27		15	21	17
Connecticut (April).....	11	209	395	1	905			249	70	12
Delaware (April).....	1	4	8	4	8			196		
District of Columbia (March).....		53	27		23			41	20	4
District of Columbia (April).....		39	9		62			29	7	3
Florida (April).....	1	56	73	39	18	11	1	7	41	35
Maryland (January).....	3	303	247	2	554			446	1	43
Massachusetts (April).....	15	581	163		3,621	2	3	743		29
Nebraska (April).....	1	37	108		374			99	41	

### CITY REPORTS FOR WEEK ENDED APRIL 29, 1922.

#### CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Apr. 29, 1922.		City.	Median for previous years.	Week ended Apr. 29, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
California:				New York:			
Los Angeles.....	0	1	1	New York.....	5	6	2
Connecticut:				Niagara Falls.....	0		1
Waterbury.....	0	1		Troy.....	0	1	1
Illinois:				Yonkers.....	0	1	
Chicago.....	3	2		Ohio:			
Iowa:				Cincinnati.....	0	1	
Mason City.....	0	1		Martins Ferry.....		1	1
Kansas:				Pennsylvania:			
Leavenworth.....	0	1		Philadelphia.....	1	2	2
Kentucky:				Wilkes-Barre.....	0	1	
Louisville.....	0	2	2	South Carolina:			
Massachusetts:				Columbia.....	0	1	
Fall River.....	0	1		West Virginia:			
Lawrence.....	0		1	Charleston.....	0	1	
Michigan:				Huntington.....	0		1
Ann Arbor.....	0	3					
Detroit.....	0	1	1				
New Jersey:							
Bayonne.....	0	2					
Montclair.....	0		1				

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA.

See p. 1221; also Telegraphic weekly reports from States, p. 1211, and Monthly summaries by States, p. 1215.

## INFLUENZA.

City.	Cases.		Deaths, week ended Apr. 29, 1922.	City.	Cases.		Deaths week ended Apr. 29 1922.
	Week ended Apr. 30, 1921.	Week ended Apr. 29, 1922.			Week ended Apr. 30, 1921.	Week ended Apr. 29, 1922.	
Alabama:				Michigan:			
Mobile.....			1	Detroit.....	1	3	5
California:				Minnesota:			
Berkeley.....	3			Faribault.....			1
Long Beach.....		1	1	Missouri:			
Los Angeles.....	3	10		Kansas City.....	4	4	4
Pasadena.....	2			St. Joseph.....	1		
San Diego.....		1	1	St. Louis.....	1		
San Francisco.....	8	15	1	Nebraska:			
Santa Ana.....		6		Lincoln.....			1
Colorado:				New Jersey:			
Denver.....			1	Kearny.....	1	3	
Connecticut:				Newark.....	11	8	
Bridgeport.....		2		New York:			
Manchester.....		1		Albany.....		2	
Meriden.....	2	2	2	Auburn.....		1	
Stonington.....	2			Cohoes.....	3		
Waterbury.....		2	2	Lackawanna.....		1	
District of Columbia:				New York.....	57	29	11
Washington.....	1	3	1	North Tonawanda.....	3		
Florida:				Rochester.....		22	6
Tampa.....		1		Syracuse.....		2	
Georgia:				Watertown.....			1
Atlanta.....	3	2		North Carolina:			
Augusta.....		2		Rocky Mount.....			1
Brunswick.....	3			Ohio:			
Illinois:				Akron.....		1	
Chicago.....	41	22	10	Cincinnati.....	4		2
Cicero.....		1		Cleveland.....		2	2
Quincy.....		2		Columbus.....			1
Kansas:				Toledo.....			1
Coffeyville.....		1		Youngstown.....		2	2
Kansas City.....	1			Oregon:			
Topeka.....	1			Portland.....			2
Kentucky:				Pennsylvania:			
Louisville.....		1		Philadelphia.....	2	2	3
Louisiana:				Rhode Island:			
New Orleans.....		1	2	Providence.....		1	
Maryland:				South Carolina:			
Baltimore.....	6	12	1	Charleston.....			1
Cumberland.....	1	2	1	Texas:			
Massachusetts:				Dallas.....	2	1	2
Boston.....	5	6		Utah:			
Cambridge.....	1	2	1	Provo.....		4	
Everett.....	1			Salt Lake City.....			1
Fall River.....	1	1		Virginia:			
Haverhill.....	5			Danville.....	1		1
New Bedford.....	1			Wisconsin:			
Newton.....		1	1	La Crosse.....		3	
Saugus.....	3	1		Madison.....		1	
Somerville.....	2			Milwaukee.....		1	
Woburn.....			1				

## LETHARGIC ENCEPHALITIS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Massachusetts:			New Jersey:		
Danvers.....	1	1	Paterson.....	3	
Nebraska:					
Omaha.....	1	1			

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## MALARIA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Kentucky:		
Birmingham.....	1	.....	Owensboro.....	2	.....
Arkansas:			New York:		
Little Rock.....	2	.....	New York.....	1	.....
Florida:			Tennessee:		
Tampa.....	7	.....	Memphis.....	1	.....
Georgia:			Texas:		
Rome.....	1	.....	Dallas.....	1	.....

## MEASLES.

See p. 1221; also Telegraphic weekly reports from States, p. 1211, and Monthly summaries, by States, p. 1215.

## PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Georgia:			Tennessee:		
Savannah.....		1	Memphis.....		1
Louisiana:			Texas:		
New Orleans.....	1	.....	Dallas.....	1	.....
North Carolina:					
Raleigh.....		1			
Winston-Salem.....	1	.....			

## PNEUMONIA (ALL FORMS).

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Illinois—Continued.		
Birmingham.....		3	Cicero.....	2	.....
Mobile.....		1	East St. Louis.....		1
Montgomery.....		2	Elgin.....		1
California:			Evanston.....	1	.....
Alameda.....		1	Freeport.....	2	1
Bakersfield.....		1	Galesburg.....	4	.....
Berkeley.....	2	.....	Jacksonville.....		1
Eureka.....	1	.....	Kewanee.....		1
Long Beach.....		3	La Salle.....		1
Los Angeles.....	23	13	Oak Park.....		2
Oakland.....	5	4	Peoria.....	1	4
Pasadena.....		3	Quincy.....	1	.....
Riverside.....	1	.....	Springfield.....		3
Sacramento.....	4	.....	Indiana:		
San Bernardino.....	1	.....	Fort Wayne.....		2
San Diego.....		2	Indianapolis.....		14
Santa Ana.....		1	Terre Haute.....		1
Santa Cruz.....	1	.....	Iowa:		
Stockton.....		2	Burlington.....	3	1
Colorado:			Council Bluffs.....		1
Denver.....		4	Kansas:		
Connecticut:			Kansas City.....	3	.....
Bristol.....	8	.....	Lawrence.....		1
Fairfield.....		1	Salina.....	1	.....
Hartford.....	8	2	Topeka.....	4	.....
Manchester.....	1	.....	Wichita.....		2
Meriden.....		1	Kentucky:		
Milford.....		1	Covington.....		2
New London.....		2	Lexington.....		1
Norwalk.....		1	Louisville.....	15	8
Stonington.....		1	Owensboro.....	3	.....
Watertury.....	6	5	Louisiana:		
District of Columbia:			New Orleans.....	2	1
Washington.....		7	Maine:		
Florida:			Auburn.....		2
Tampa.....	2	1	Bangor.....	1	.....
Georgia:			Bath.....		1
Atlanta.....	6	.....	Biddeford.....		1
Augusta.....	1	.....	Lewiston.....		2
Illinois:			Portland.....		1
Alton.....		3	Maryland:		
Aurora.....	2	.....	Baltimore.....	32	15
Bloomington.....		2	Cumberland.....	1	.....
Chicago.....	274	97			

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
<b>Massachusetts:</b>			<b>New Jersey—Continued.</b>		
Amesbury.....		1	Trenton.....	19	11
Arlington.....	1		West Hoboken.....	1	
Attleboro.....	1		West Orange.....	1	
Boston.....		23	<b>New Mexico:</b>		
Brookline.....	3		Albuquerque.....		2
Cambridge.....	7	4	<b>New York:</b>		
Chicopee.....	1	2	Albany.....	13	
Clinton.....	1	1	Buffalo.....	23	17
Fall River.....	0	5	Elmira.....	7	3
Framingham.....	1	1	Glens Falls.....	2	
Gardner.....		1	Hornell.....		1
Haverhill.....	4	2	Hudson.....		1
Lawrence.....	4	1	Jamestown.....		1
Leominster.....	1		Lackawanna.....	6	1
Lowell.....	5	1	Lockport.....	4	3
Malden.....	1		Middletown.....	1	
Melrose.....	1		Mount Vernon.....	2	1
New Bedford.....		4	New York.....	372	164
Newburyport.....		1	Niagara Falls.....		5
Newton.....	2		North Tonawanda.....	1	1
North Adams.....		1	Peekskill.....	1	
Peabody.....	1		Port Chester.....	3	
Pittsfield.....	1		Poughkeepsie.....		1
Quincy.....		2	Rome.....	1	
Salem.....	3	1	Schenectady.....	6	3
Somerville.....	1	1	Syracuse.....	12	7
Springfield.....	5	2	Troy.....	3	2
Taunton.....	2		Watertown.....		2
Wakefield.....	1	1	White Plains.....	4	
Woburn.....		1	Yonkers.....		1
Worcester.....		2	<b>North Carolina:</b>		
<b>Michigan:</b>			Charlotte.....		2
Ann Arbor.....		1	Greensboro.....		1
Battle Creek.....	1		Raleigh.....		1
Benton Harbor.....	1		Wilmington.....		1
Detroit.....	75	27	Winston-Salem.....		1
Flint.....		4	<b>Ohio:</b>		
Grand Rapids.....	3	1	Akron.....	10	
Holland.....	2		Barberton.....		2
Jackson.....	3		Canton.....		4
Kalamazoo.....		1	Cincinnati.....		6
Marquette.....		1	Cleveland.....	32	23
Pontiac.....	3		Columbus.....		1
Port Huron.....	2		Dayton.....	1	
Sault Ste. Marie.....		1	East Cleveland.....	2	1
<b>Minnesota:</b>			East Youngstown.....		1
Duluth.....	5	4	Hamilton.....		1
Faribault.....	1		Lancaster.....		1
Minneapolis.....	14		Lima.....	1	
St. Paul.....	5		Mansfield.....	1	
<b>Missouri:</b>			Newark.....		1
Jefferson City.....		1	Niles.....		1
Kansas City.....	18	14	Norwood.....		1
St. Joseph.....		3	Piqua.....		2
Springfield.....		1	Sandusky.....	1	
<b>Montana:</b>			Springfield.....		1
Anaconda.....		2	Toledo.....		7
Missoula.....	3	1	Youngstown.....		6
<b>Nebraska:</b>			<b>Oklahoma:</b>		
Lincoln.....		4	Oklahoma.....		1
Omaha.....		0	<b>Oregon:</b>		
<b>Nevada:</b>			Portland.....		3
Reno.....	3		<b>Pennsylvania:</b>		
<b>New Jersey:</b>			Philadelphia.....	50	32
Atlantic City.....	3	1	Rhode Island:		
Bellefonte.....	1		Pawtucket.....		1
Bloomfield.....		2	Providence.....		6
Clifton.....	1		<b>South Carolina:</b>		
Elizabeth.....		4	Charleston.....		4
Englewood.....	1		Greenville.....		1
Hackensack.....	1		<b>South Dakota:</b>		
Hoboken.....		4	Sioux Falls.....		1
Jersey City.....	3		<b>Tennessee:</b>		
Kearny.....	2		Memphis.....		2
Montclair.....		1	Nashville.....		3
Morristown.....	1		<b>Texas:</b>		
Newark.....	42	11	Dallas.....		3
Orange.....	5		El Paso.....		2
Paterson.....	3		Fort Worth.....		1
Perth Amboy.....		2			



## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Texas—Continued.			Virginia—Continued.		
Houston.....		2	Roanoke.....		1
Waco.....		2	West Virginia:		
Utah:			Charleston.....		1
Provo.....	3	1	Huntington.....		2
Salt Lake City.....		4	Wheeling.....		1
Vermont:			Wisconsin:		
Burlington.....		3	Beloit.....		1
Rutland.....		2	Janesville.....		3
Virginia:			Kenosha.....		1
Alexandria.....		1	La Crosse.....	4	
Norfolk.....		2	Milwaukee.....	23	
Petersburg.....		1	Racine.....		1
Richmond.....		5			

## POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Apr. 29, 1922.		City.	Median for pre- vious years.	Week ended Apr. 29, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
California:				New Jersey:			
Los Angeles.....	0		1	Newark.....	0	1	
Connecticut:				New York:			
Manchester.....	0	1		New York.....	1	2	1
Maine:				Virginia:			
Waterville.....	0	1		Roanoke.....	0	1	
Massachusetts:							
Lynn.....	0	1					
Pittsfield.....	0		1				

## RABIES IN ANIMALS.

City.	Cases.	City.	Cases.
California:		Missouri:	
Pasadena.....	2	Kansas City.....	1
Kentucky:			
Louisville.....	6		

## RABIES IN MAN.

City.	Cases.	Deaths.
California:		
Los Angeles.....		1

## SCARLET FEVER.

See p. 1221; also Telegraphic weekly reports from States, p. 1211, and Monthly summaries by States, p. 1215.

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Apr. 29, 1922.		City.	Median for pre- vious years.	Week ended Apr. 29, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Montana:			
Mobile.....	8	1	1	Great Falls.....	2	5	
California:				Nebraska:			
Bakersfield.....	0	1		Lincoln.....	7	3	
Berkeley.....	0	1		Nevada:			
Long Beach.....	0	1		Reno.....	0	1	
Los Angeles.....	2	2		New York:			
Oakland.....	1	1		New York.....	1	1	
Stockton.....	0	1		North Carolina:			
Colorado:				Durham.....	0	2	
Denver.....	30	6	4	Winston-Salem.....	5	1	
Pueblo.....	0	1	1	North Dakota:			
Connecticut:				Grand Forks.....	1	1	
Bridgeport.....	0	2		Ohio:			
Fairfield.....		1		Akron.....	1	1	
District of Columbia:				Alliance.....	1	1	
Washington.....	0	1		Canton.....	2	4	
Georgia:				Dayton.....	1	3	
Atlanta.....	15	2		Fremont.....	0	2	
Augusta.....	0	2	0	Lima.....	0	3	
Brunswick.....	0	2		New Philadelphia.....	0	2	
Macon.....	0	1		Sandusky.....	0	1	
Illinois:				Springfield.....	1	4	
Aurora.....	0	3		Oklahoma:			
Centralia.....	0	1		Oklahoma.....	6	2	
Chicago.....	2	3		Oregon:			
Pekin.....	1	7		Portland.....	1	6	
Peoria.....	1	7		Pennsylvania:			
Indiana:				Johnstown.....	0	1	
Indianapolis.....	14	2		South Dakota:			
Kokomo.....	1	2		Sioux Falls.....	2	2	
Iowa:				Tennessee:			
Burlington.....	0	1		Nashville.....	1	1	
Des Moines.....	5	2		Texas:			
Mason City.....	4	1		Fort Worth.....	3	1	
Kansas:				Washington:			
Hutchinson.....	1	5		Aberdeen.....	0	2	
Kansas City.....	5	1		Bellingham.....	1	1	
Wichita.....	9	1		Everett.....	1	3	
Kentucky:				Seattle.....	16	2	
Louisville.....	0	1		Spokane.....	13	2	
Michigan:				West Virginia:			
Ann Arbor.....	0	2		Bluefield.....	4	4	
Detroit.....	15	1		Parkersburg.....	0	1	
Pontiac.....	2	1		Wisconsin:			
Minnesota:				Milwaukee.....	3	2	
Faribault.....		3		Superior.....	1	17	
Minneapolis.....	21	8		Wausau.....	0	2	
St. Paul.....	6	15		Wyoming:			
Missouri:				Cheyenne.....	1	1	
Kansas City.....	9	2	1				

## TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Kentucky:			Oklahoma:		
Louisville.....		1	Oklahoma.....		1
New York:			South Carolina:		
New York.....	2	1	Charleston.....		2
Ohio:					
Hamilton.....		1			

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## TUBERCULOSIS.

See table below; also Telegraphic weekly reports from State, p. 1211.

## TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Apr. 29, 1922.		City.	Median for previous years.	Week ended Apr. 29, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Michigan:			
Birmingham.....	1	1	.....	Detroit.....	4	2	1
California:				Minnesota:			
Los Angeles.....	3	4	.....	Minneapolis.....	2	1	.....
Sacramento.....	0	1	.....	Missouri:			
Stockton.....	0	1	.....	Kansas City.....	2	1	1
Colorado:				St. Louis.....	5	2	1
Pueblo.....	0	3	.....	New Jersey:			
Connecticut:				Paterson.....	0	1	.....
Bridgeport.....	0	1	.....	Trenton.....	0	.....	1
Hartford.....	0	.....	1	New York:			
District of Columbia:				Buffalo.....	2	1	.....
Washington.....	4	.....	1	New York.....	13	8	.....
Florida:				Rochester.....	0	1	.....
Tampa.....	.....	7	.....	Ohio:			
Georgia:				Hamilton.....	0	.....	1
Albany.....	.....	2	.....	Sandusky.....	0	1	.....
Brunswick.....	0	1	.....	Youngstown.....	0	1	1
Macon.....	1	2	.....	Oregon:			
Savannah.....	0	1	1	Portland.....	0	1	.....
Illinois:				Pennsylvania:			
Chicago.....	4	3	1	Berwick.....	0	1	.....
Quincy.....	0	1	.....	Chester.....	0	1	.....
Indiana:				New Castle.....	2	1	.....
Logansport.....	0	1	.....	Philadelphia.....	6	4	2
Iowa:				Pittsburgh.....	2	1	.....
Muscatine.....	0	1	.....	Sharon.....	0	1	.....
Kansas:				Tennessee:			
Atchison.....	0	1	.....	Memphis.....	1	1	.....
Parsons.....	0	1	.....	Texas:			
Kentucky:				Dallas.....	0	1	.....
Covington.....	0	2	.....	El Paso.....	0	2	.....
Louisville.....	1	1	.....	Fort Worth.....	0	1	.....
Louisiana:				Virginia:			
New Orleans.....	4	1	2	Lynchburg.....	0	1	.....
Maine:				Portsmouth.....	0	1	.....
Bangor.....	0	1	.....	West Virginia:			
Portland.....	0	1	.....	Fairmont.....	0	1	.....
Maryland:				Wheeling.....	0	2	.....
Baltimore.....	5	1	1	Wisconsin:			
Massachusetts:				Fond du Lac.....	0	3	.....
Fall River.....	1	1	.....	Milwaukee.....	1	2	.....
Greenfield.....	0	1	.....				
Malden.....	0	1	.....				
Newton.....	0	1	.....				
Springfield.....	0	1	.....				

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:		m								
Birmingham.....	178,270	37	.....	.....	1	.....	.....	.....	12	6
Mobile.....	69,151	26	2	1	.....	.....	.....	.....	.....	3
Montgomery.....	43,464	11	1	.....	.....	.....	.....	.....	.....	.....
Arkansas:										
Hot Springs.....	11,695	5	.....	.....	.....	.....	.....	.....	.....	.....
Little Rock.....	61,997	.....	.....	.....	1	.....	.....	.....	1	.....
North Little Rock.....	14,048	.....	.....	.....	1	.....	.....	.....	.....	.....

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
California:										
Alameda.....	28,806	11	3				9			
Bakersfield.....	18,638	10								1
Berkeley.....	55,886	12	4		3				1	
Eureka.....	12,923	4	1		2		1		2	
Long Beach.....	55,593	15	2		3		2			
Los Angeles.....	576,673	190	31		6		15		58	22
Oakland.....	216,361	67	4		3		5		5	3
Pasadena.....	45,354	19	1				6		3	3
Richmond.....	16,843	2								
Riverside.....	19,341	8							7	2
Sacramento.....	65,857	20	1		2				10	1
San Bernardino.....	18,721	4			1				1	1
San Diego.....	74,683	29	1				7		5	4
Santa Ana.....	15,485	8	1							1
Santa Barbara.....	19,441	4							1	
Santa Cruz.....	10,917	6								
Stockton.....	40,296	12	4				1			3
Colorado:										
Denver.....	256,369	73	9	2	2		9			10
Greeley.....	10,883	2								
Pueblo.....	42,908	18	2				2		1	
Trinidad.....	10,906		4							
Connecticut:										
Bridgeport.....	143,538	34	11		17		20	1	6	2
Bristol.....	20,620	3	2		1		3			2
Danbury (city).....	18,943	7								
Derby.....	11,238	3								
Fairfield (town).....	11,475	2	1		1					1
Greenwich (town).....	22,123		2		1		1			
Hartford.....	138,036	31	7		77		1		3	
Manchester (town).....	18,370	3			1					
Meriden (city).....	29,842		1				1			
Milford (town).....	10,193	2	2							
New London.....	25,688	9	3		14				1	
Norwalk.....	27,700	5								
Stonington (town).....	10,236	2								1
Waterbury.....	91,410	29			2		1		1	1
Delaware:										
Wilmington.....	110,168	32					22			3
District of Columbia:										
Washington.....	437,571	135	11	1	14		8	1	32	15
Florida:										
Tampa.....	51,232	20								5
Georgia:										
Albany.....	11,555								2	
Atlanta.....	200,616	67	1				2		3	5
Augusta.....	52,548	15			1					2
Brunswick.....	14,413	4								
Macon.....	52,995		1				1			
Savannah.....	83,252	19					1			3
Valdosta.....	10,783	1	2				1		1	
Idaho:										
Boise.....	21,393	4	1				2			
Illinois:										
Alton.....	24,682	7	1				1			
Aurora.....	36,397	10	1		23		2		1	
Bloomington.....	28,725	4	1				2		5	
Centralia.....	12,491	3			2					
Chicago.....	2,701,705	721	93	6	500	7	64	2	185	68
Chicago Heights.....	19,653	5								1
Cicero.....	44,995	8	5	2					2	
East St. Louis.....	66,740	6	2				2			2
Elgin.....	27,454	10			1					
Evanston.....	37,215	10			2					
Freeport.....	19,669	6							3	1
Galesburg.....	23,834	4								
Jacksonville.....	15,713	6	1				6			
Kewanee.....	16,026	1					3		1	
La Salle.....	13,050	3	1							
Mattoon.....	13,552	1	1							
Oak Park.....	39,830	14	2		9		1		1	
Pekin.....	12,066						1			

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Illinois—Continued.										
Peoria.....	76,121	16					2			
Quincy.....	35,978	12					1			
Springfield.....	59,183	16	1				2		1	
Indiana:										
Bloomington.....	11,595	2	1							
Clinton.....	10,962	5					1			
Crawfordsville.....	10,139						1			
Fort Wayne.....	36,549	24	2		1				1	1
Frankfort.....	11,585	3								
Gary.....	55,378	9			2					
Hammond.....	36,004	5	2	1			1			
Huntington.....	14,000	4					1			
Indianapolis.....	314,194	99	3		51		4		4	14
Kokomo.....	30,067	5					2		1	
La Fayette.....	22,486	8	1				1		1	
Logansport.....	21,626	7	1							
Mishawaka.....	15,195	6			1					
Muncie.....	36,624	15	3							2
Newcastle.....	14,458	2								
South Bend.....	70,983	9	2		1					
Terre Haute.....	66,033	21			1		1			1
Iowa:										
Burlington.....	24,057	4								
Clinton.....	24,151		4				3			
Council Bluffs.....	36,162	12		1	4					
Davenport.....	56,727		2				1			
Des Moines.....	126,468						24			
Dubuque.....	39,141						2			
Iowa City.....	11,267						1			
Mason City.....	20,065	7					1			
Muscatine.....	16,068	3					1			
Sioux City.....	71,227								3	
Waterloo.....	36,230						1			
Kansas:										
Atchison.....	12,630						1			
Coffeyville.....	13,452	3					1			
Fort Scott.....	10,693	4	1				1			
Hutchinson.....	23,298		1		1		1			
Kansas City.....	101,177								2	
Lawrence.....	12,456	3					1		1	1
Leavenworth.....	16,912								1	
Parsons.....	16,028	5			1					
Salina.....	15,085	3								
Topeka.....	50,022	8	3				2		2	
Wichita.....	72,128	28			1		6		1	2
Kentucky:										
Covington.....	57,121	14			4				1	2
Lexington.....	41,534	14	1		35					2
Louisville.....	234,891	79	2		8		2		36	12
Owensboro.....	17,424		3							
Paducah.....	24,735				2					
Louisiana:										
New Orleans.....	387,210	93	5		1		4		13	11
Maine:										
Auburn.....	16,985	8	1						1	1
Bangor.....	25,978						1			
Bath.....	14,731	1								
Biddeford.....	18,008	2	1				1			
Lewiston.....	31,791	15					6			
Portland.....	69,272	11	2				14			
Maryland:										
Baltimore.....	733,826	180	17	1	234	2	25		49	28
Cumberland.....	29,837	9	1						1	1
Massachusetts:										
Adams.....	12,967	3								
Amesbury.....	10,036	4								
Arlington.....	18,665	4			1					1
Attleboro.....	19,731	3								1
Belmont.....	10,749	2					6			
Beverly.....	22,561	5	2	1			1		1	
Boston.....	748,060	240	65	1	227	1	52	1	43	29
Braintree.....	10,580	1			1					
Brookline.....	37,748	12	1		22		2		3	

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Massachusetts—Continued.										
Cambridge.....	109,694	30	6	—	82	—	9	—	5	6
Chelsea.....	43,184	10	1	—	4	—	1	—	1	2
Chicopee.....	36,214	8	—	—	3	—	—	—	1	—
Clinton.....	12,979	7	—	—	2	—	—	—	—	—
Danvers.....	11,108	—	—	—	—	—	2	—	—	—
Dedham.....	10,792	2	—	—	—	—	2	—	—	—
Everett.....	40,120	3	3	—	16	—	1	—	1	—
Fall River.....	120,485	36	5	—	2	—	4	—	8	4
Frammingham.....	17,033	3	—	—	—	—	—	—	1	—
Gardner.....	10,971	4	2	—	1	—	—	—	—	—
Greenfield.....	15,462	8	—	—	2	—	2	—	—	—
Haverhill.....	53,884	17	1	—	1	—	2	—	3	1
Lawrence.....	94,270	32	1	1	50	1	—	—	2	1
Leominster.....	19,744	4	—	—	2	—	—	—	1	1
Lowell.....	112,479	25	5	—	4	—	2	—	3	—
Lynn.....	99,148	24	6	—	4	—	—	—	4	3
Malden.....	49,103	6	3	—	17	—	4	—	—	1
Medford.....	39,038	5	3	—	3	—	1	—	—	—
Melrose.....	18,204	1	—	—	—	—	2	—	1	—
Methuen.....	15,189	5	2	—	10	—	—	—	—	—
Natick.....	10,907	—	—	—	1	—	3	—	—	—
New Bedford.....	121,217	33	4	—	1	—	6	—	12	4
Newburyport.....	15,618	3	—	—	12	—	—	—	—	—
Newton.....	46,054	9	2	—	27	—	5	—	—	1
North Adams.....	22,282	6	—	—	—	—	—	—	2	1
Northampton.....	21,951	11	2	1	3	—	1	—	1	—
Norwood.....	12,627	3	—	—	—	—	—	—	—	—
Peabody.....	19,552	6	—	—	15	1	—	—	—	—
Pittsfield.....	41,751	7	1	—	—	—	2	—	1	—
Plymouth.....	13,045	2	—	1	34	—	—	—	—	—
Quincy.....	47,876	6	—	—	—	—	5	—	2	—
Salem.....	42,529	15	4	1	29	—	3	—	2	1
Saugus.....	10,874	3	—	—	—	—	—	—	2	1
Somerville.....	93,091	16	3	1	49	—	13	—	5	1
Southbridge.....	14,245	4	—	—	—	—	—	—	—	—
Springfield.....	129,563	32	1	—	42	1	6	—	8	2
Taunton.....	37,137	17	—	—	—	—	2	—	1	—
Wakefield.....	13,025	3	—	—	7	—	—	—	—	—
Watertown.....	21,457	5	—	—	10	—	3	—	2	1
Webster.....	13,258	4	—	—	—	—	—	—	—	—
West Springfield.....	13,443	2	—	—	—	—	—	—	—	—
Westfield.....	18,604	3	—	—	6	—	—	—	2	1
Weymouth.....	15,057	8	—	—	—	—	—	—	—	—
Winthrop.....	15,455	3	—	—	2	—	—	—	1	—
Woburn.....	16,574	4	—	—	—	—	—	—	—	—
Worcester.....	179,754	49	6	2	—	—	6	—	7	3
Michigan:										
Alpena.....	11,101	—	—	—	—	—	1	—	—	—
Ann Arbor.....	19,516	14	—	1	2	—	3	—	—	—
Battle Creek.....	36,164	—	1	—	31	—	1	—	—	—
Benton Harbor.....	12,233	6	4	—	—	—	—	—	—	—
Detroit.....	903,739	233	34	4	262	13	51	—	79	15
Flint.....	91,599	25	2	1	9	—	5	—	—	—
Grand Rapids.....	137,634	34	5	—	3	—	2	1	2	3
Hamtramck.....	48,615	—	3	—	18	—	1	—	—	—
Holland.....	12,166	1	—	—	—	—	—	—	—	—
Jackson.....	48,374	7	2	—	—	—	1	—	1	—
Kalamazoo.....	48,858	13	5	—	—	—	10	1	9	—
Marquette.....	12,718	6	1	—	—	—	—	—	—	—
Pontiac.....	34,273	3	2	—	46	—	1	—	—	1
Port Huron.....	25,944	4	1	—	2	—	—	—	—	—
Sault Ste. Marie.....	12,096	1	—	—	—	—	—	—	1	—
Minnesota:										
Duluth.....	98,917	19	—	—	—	—	3	—	2	1
Faribault.....	11,089	8	—	—	1	—	—	—	—	1
Hibbing.....	15,089	1	2	—	—	—	1	—	—	—
Mankato.....	12,469	—	—	—	—	—	—	—	—	—
Minneapolis.....	380,582	94	13	1	49	1	22	—	33	9
Rochester.....	13,722	14	—	—	1	—	2	—	—	—
St. Cloud.....	15,873	—	1	1	—	—	5	—	—	—
St. Paul.....	234,596	62	13	1	27	—	18	—	10	6
Virginia.....	14,022	—	—	—	—	—	—	—	1	—



## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.*	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Missouri:										
Cape Girardeau.....	10,252	4	1	1						1
Jefferson City.....	14,490									
Joplin.....	29,855		1							
Kansas City.....	324,410	92	6		9		4		3	2
St. Joseph.....	77,939	30	2				1	1		1
St. Louis.....	772,897	195	31	3	1		15		36	13
Springfield.....	39,631	12								1
Montana:										
Anaconda.....	11,668	4								
Billings.....	15,100	5								
Great Falls.....	24,121	11					1			
Missoula.....	12,668	11							1	1
Nebraska:										
Lincoln.....	54,934	20	1		56				2	
Omaha.....	191,601	48	5		30		3			3
Nevada:										
Reno.....	12,016	5								
New Hampshire:										
Berlin.....	16,104	5					1			1
Concord.....	22,167	12								1
Dover.....	13,029	2			3					
Keene.....	11,210	6					2			
Nashua.....	28,379	7								
Portsmouth.....	13,569		1		1		1			
New Jersey:										
Asbury Park.....	12,400	1					2			
Atlantic City.....	50,642	16	3		2		6			
Bayonne.....	76,754		1		24		1		2	
Belleville.....	15,660				10		2			
Bloomfield.....	22,019	3			23		3		1	
Clifton.....	26,470	3	1		2		1			
Elizabeth.....	95,682	7			2		6		1	1
Englewood.....	11,527	2			4		1			
Garfield.....	19,381	3			2		3			
Hackensack.....	17,667	9	1		38					
Harrison.....	15,721	1	1				1		5	4
Hoboken.....	68,166	24	4		19	1	1		15	
Jersey City.....	297,864	15			60		8			
Kearny.....	26,724	8			20		3			
Montclair.....	28,810	10	2		12		1		2	1
Morristown.....	12,548	3					2		2	2
Newark.....	414,216	112	18	1	112		53	2	26	10
Orange.....	33,268	5	1		2		3			1
Passaic.....	63,824	17	2		5		12			2
Paterson.....	135,866	7			75		3			
Perth Amboy.....	41,707	13	1		4		2		1	
Phillipsburg.....	16,923	4								
Plainfield.....	27,700	5		1	9		1	1		
Summit.....	10,174	7			1					
Trenton.....	119,289	53	1	1	49	1	5		4	4
Union.....	20,651				4		3			
West Hoboken.....	40,068	9	1	1	13		2		5	
West New York.....	29,926	3	1		45		1		1	
West Orange.....	15,573						2			
New Mexico:										
Albuquerque.....	15,157	11	3	2			5		5	1
New York:										
Albany.....	113,344		7		2		1		9	
Auburn.....	36,192	7	1		1				4	1
Buffalo.....	506,775	126	6		3		10	2	34	8
Cohoes.....	22,967	4								
Elmira.....	45,305	12			47					
Geneva.....	14,648	3								1
Glens Falls.....	16,638	3								
Hornell.....	15,025	4			37				2	
Hudson.....	11,745	5			1					
Jamestown.....	38,917	13	1		21		2		2	
Lackawanna.....	17,918	3	1				2			1
Little Falls.....	13,029	2								
Lockport.....	21,308	7					1			
Middletown.....	18,420				1				1	
Mount Vernon.....	42,726	8	5		27		4		1	1

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
New York—Continued.											
Newburgh.....	30,366	16	2	.....	3	.....	.....	.....	.....	1	.....
New York.....	5,621,151	1,503	289	30	2,128	58	328	5	211	102	.....
Niagara Falls.....	50,760	16	5	2	13	.....	6	.....	.....	1	.....
North Tonawanda.....	15,482	5	2	.....	1	.....	1	.....	.....	1	.....
Ogdensburg.....	14,609	11	.....	.....	.....	.....	.....	.....	.....	.....	.....
Olean.....	20,506	5	2	.....	1	.....	.....	.....	.....	1	2
Peekskill.....	15,868	5	.....	.....	5	.....	4	.....	.....	.....	.....
Plattsburg.....	10,909	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Chester.....	16,573	4	.....	.....	.....	.....	4	.....	.....	.....	.....
Poughkeepsie.....	35,000	11	.....	.....	19	.....	1	.....	.....	1	.....
Rochester.....	285,750	79	5	2	49	.....	1	.....	9	5	.....
Rome.....	26,341	7	.....	.....	.....	.....	3	.....	.....	.....	.....
Saratoga Springs.....	13,181	6	1	.....	.....	.....	.....	.....	2	.....	.....
Schenectady.....	88,723	24	.....	.....	.....	.....	5	.....	.....	2	.....
Syracuse.....	171,717	49	25	3	6	.....	11	.....	4	2	.....
Troy.....	72,013	25	3	.....	.....	.....	1	.....	9	2	.....
Watertown.....	31,285	15	.....	.....	.....	.....	.....	.....	1	.....	.....
Watervliet.....	16,073	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Plains.....	21,031	6	.....	.....	31	.....	.....	.....	.....	1	.....
Yonkers.....	100,226	23	3	.....	77	.....	7	.....	5	5	.....
North Carolina:											
Charlotte.....	46,338	13	1	.....	.....	.....	.....	.....	.....	.....	.....
Durham.....	21,719	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greensboro.....	19,861	14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Raleigh.....	24,418	12	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rocky Mount.....	12,742	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salisbury.....	13,884	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington.....	33,372	8	.....	.....	1	.....	.....	.....	1	.....	.....
Winston-Salem.....	48,395	15	.....	.....	.....	.....	.....	.....	2	2	.....
North Dakota:											
Fargo.....	21,961	0	.....	.....	.....	.....	1	.....	.....	.....	.....
Grand Forks.....	14,010	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Ohio:											
Akron.....	208,435	.....	2	.....	69	.....	8	.....	16	.....	.....
Alliance.....	21,603	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ashtabula.....	22,082	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barberton.....	18,811	5	.....	.....	1	.....	.....	.....	.....	.....	.....
Bucyrus.....	10,425	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cambridge.....	13,104	4	1	.....	5	.....	.....	.....	1	.....	.....
Canton.....	47,091	19	3	.....	54	.....	.....	.....	.....	.....	.....
Chillicothe.....	15,831	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cincinnati.....	401,247	116	2	.....	151	2	5	.....	9	.....	.....
Cleveland.....	796,836	149	20	2	193	1	44	1	42	14	.....
Cleveland Heights.....	15,236	.....	.....	.....	16	.....	2	.....	.....	.....	.....
Columbus.....	237,031	61	5	.....	28	.....	3	.....	4	6	.....
Dayton.....	182,559	28	4	.....	1	.....	7	.....	4	.....	.....
East Cleveland.....	27,292	3	2	.....	23	.....	.....	.....	.....	.....	.....
East Youngstown.....	11,237	3	.....	.....	.....	1	.....	.....	.....	.....	.....
Findlay.....	17,021	3	.....	.....	.....	.....	1	.....	.....	.....	.....
Fremont.....	12,468	7	1	.....	.....	.....	.....	.....	2	.....	.....
Hamilton.....	39,675	6	.....	.....	1	.....	1	.....	1	.....	.....
Kenmore.....	12,683	.....	.....	.....	4	.....	.....	.....	.....	.....	.....
Lancaster.....	14,706	7	2	.....	.....	.....	.....	.....	1	.....	.....
Lima.....	41,306	6	2	.....	1	.....	.....	.....	.....	.....	.....
Lorain.....	27,295	.....	.....	.....	.....	.....	4	.....	.....	.....	.....
Mansfield.....	27,824	4	2	.....	.....	.....	.....	.....	.....	.....	.....
Marion.....	27,891	.....	1	.....	.....	.....	1	.....	.....	.....	.....
Martins Ferry.....	11,634	1	1	.....	.....	.....	.....	.....	.....	.....	.....
Middletown.....	23,594	3	1	.....	.....	.....	1	.....	.....	.....	.....
Newark.....	26,718	4	2	.....	.....	.....	.....	.....	.....	.....	.....
Niles.....	13,080	1	.....	.....	2	.....	1	.....	.....	.....	.....
Norwood.....	24,966	3	.....	.....	23	.....	.....	.....	.....	.....	.....
Piqua.....	15,044	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem.....	10,305	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sandusky.....	22,897	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
Springfield.....	60,840	12	.....	.....	.....	.....	2	.....	.....	.....	.....
Steubenville.....	28,508	12	.....	.....	.....	.....	1	.....	1	.....	.....
Tiffin.....	14,375	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Toledo.....	243,199	59	9	.....	58	.....	4	.....	10	6	.....
Youngstown.....	132,358	36	5	1	20	.....	1	.....	5	3	.....
Zanesville.....	29,569	10	1	.....	1	.....	4	.....	.....	.....	.....

¹ Pulmonary tuberculosis only.

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Oklahoma:										
Oklahoma.....	91,258	23	1		1		1			4
Tulsa.....	72,075		1		12					
Oregon:										
Portland.....	258,288	53	3		1		5		6	
Pennsylvania:										
Allentown.....	73,502		4		3				1	
Altoona.....	60,331		2				5			
Ambridge.....	12,730				1					
Beaver Falls.....	12,802								1	
Berwick.....	12,181		1		29					
Bethlehem.....	50,358		1		7					
Bradford.....	20,879				1				4	
Bradford.....	15,525		1							
Butler.....	23,778		1				2			
Carlisle.....	10,916				35					
Carnegie.....	11,516				1					
Carrick.....	10,504				1					
Chambersburg.....	13,171				5					
Chester.....	58,030		2		1		3			
Dubois.....	18,681		1							
Dubois.....	33,813		1		26		2			
Easton.....	93,372		1		2		1		10	
Erie.....	15,586				1		3			
Farrell.....	75,917		8		3					
Harrisburg.....	32,277		2		16					
Hazleton.....	67,327		1		19					
Johnstown.....	53,150		2		2		5			
Lancaster.....	45,975				7				1	
McKeesport.....	16,713		2							
McKees Rocks.....	15,509				3					
Mahanoy City.....	17,469								2	
Mount Carmel.....	44,938				52					
New Castle.....	11,987		1		6					
New Kensington.....	14,928		1		1					
North Braddock.....	21,274						2			
Oil City.....	1,823,158	482	74	2	108	1	95	4	88	51
Philadelphia.....	10,484				1					
Phoenixville.....	588,193		15		108		29		25	
Pittsburgh.....	17,431				1		2			
Pottstown.....	21,876		1		3					
Pottsville.....	10,311				1					
Punxsutawney.....	107,784		3		19		1			
Reading.....	137,783		5		12		6			
Seranton.....	21,204				8					
Shamokin.....	21,747		1		2		5			
Sharon.....	24,726				18					
Shenandoah.....	13,428				1		2		1	
Steelton.....	15,721				17					
Sunbury.....	12,363				9					
Tamaqua.....	15,692						1			
Uniontown.....	14,256						1			
Warren.....	21,480									
Washington.....	11,717		1							
West Chester.....	73,833		2		6		1		1	
Wilkes-Barre.....	24,403				7					
Wilkinsburg.....	36,198				6					
Williamsport.....	47,512		1		1		1			
York.....										
Rhode Island:										
Cranston.....	29,407	6								1
Pawtucket.....	64,248	8	1							
Providence.....	237,595	69	4		3		11			7
South Carolina:										
Charleston.....	67,957	20	3		1				1	2
Greenville.....	23,127	7								3
South Dakota:										
Sioux Falls.....	25,176	3					1			
Tennessee:										
Chattanooga.....	57,895		1				1		3	3
Knoxville.....	77,818		2		15				12	10
Memphis.....	162,351	58	2				1		5	3
Nashville.....	118,342	46								

## CITY REPORTS FOR WEEK ENDED APRIL 29, 1922—Continued.

## L. B. THERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Texas:</b>										
Beaumont.....	40,422	6								
Corpus Christi.....	10,522	3								
Dallas.....	158,976	42	3		68		4		2	3
El Paso.....	77,543	30			3		1			13
Fort Worth.....	106,482	26	2		1				1	
Galveston.....	44,255	14							1	
Houston.....	138,076	47	4				1			4
Waco.....	38,500	13								1
<b>Utah:</b>										
Provo.....	10,303	4					1			
Salt Lake City.....	118,110	26								1
<b>Vermont:</b>										
Barre.....	10,008						1			
Burlington.....	22,779	14	1				3	1		1
Rutland.....	14,954	9	1	1						
<b>Virginia:</b>										
Alexandria.....	18,060	4	1							
Danville.....	21,539	6			6				1	
Lynchburg.....	29,956	3							3	
Norfolk.....	115,777		3		1		2			3
Petersburg.....	31,002	7							1	1
Portsmouth.....	54,387	9					1			2
Richmond.....	171,667	49			120				21	7
Roanoke.....	50,842	18	2				1			3
<b>Washington:</b>										
Aberdeen.....	15,337				4					
Bellingham.....	25,570		1				1			
Everett.....	27,644		1							
Seattle.....	315,652		4				6			
Spokane.....	104,437		1		1		2			
Tacoma.....	96,965		3		1				7	
Walla Walla.....	18,503						1			
Yakima.....	18,539						1			
<b>West Virginia:</b>										
Bluefield.....	15,282	6	1				1			
Charleston.....	39,608	7					2			
Clarksburg.....	27,369	9	1		1		2		1	2
Fairmont.....	17,851		4		3		4			
Huntington.....	50,177	17					1			3
Martinsburg.....	12,515				11					
Morgantown.....	12,127		1		2					
Moundsville.....	10,669	3			10		2			
Parkersburg.....	29,050	4	1							
Wheeling.....	54,322	15	3	1			3		54	1
<b>Wisconsin:</b>										
Beloit.....	21,284	10	1				1	1	1	
Eau Claire.....	20,880		1				1			
Fond du Lac.....	23,427	6	1					1		
Janesville.....	18,203	4			1					
Kenosha.....	40,472	6	1		2		1		2	
La Crosse.....	30,363						1		3	
Madison.....	38,378						2		1	
Marinette.....	13,610								1	
Milwaukee.....	457,147		8		3		11		18	
Oshkosh.....	33,162	10								
Racine.....	58,593	11	4		1		10	1	2	3
Sheboygan.....	30,955		1							
Superior.....	39,624	2					1		1	
Waukesha.....	12,558						3			
Wausau.....	18,661						2			
West Allis.....	13,765						1			
<b>Wyoming:</b>										
Cheyenne.....	13,829	3								

## FOREIGN AND INSULAR.

### BRAZIL.

#### Mortality Statistics—Pernambuco—1911-1921.

During the year 1921 there were reported at Pernambuco, Brazil, 7,614 deaths, or a rate of 29.3 per 1,000 of the population (stated to be 260,000). The following table gives the number of deaths and the death rates per 1,000 of the population for the period 1911-1921:

Year.	Number of deaths.	Death rate per 1,000 inhabitants.	Year.	Number of deaths.	Death rate per 1,000 inhabitants.
1911.....	9,891	49.4	1917.....	6,347	25.9
1912.....	7,677	36.5	1918.....	9,163	37.4
1913.....	6,894	29.9	1919.....	8,641	34.5
1914.....	7,198	30.6	1920.....	7,629	29.3
1915.....	8,167	34.0	1921.....	7,614	29.3
1916.....	7,561	31.0			

The following table shows the number of deaths occurring during 1920 and 1921 from certain causes:

Disease.	1920	1921	Disease.	1920	1921
Diphtheria and croup.....	8	14	Plague.....	5	28
Dysentery.....	292	168	Scarlet fever.....	0	0
Influenza.....	482	310	Smallpox.....	5	34
Hookworm disease.....	208	243	Syphilis.....	204	233
Leprosy.....	12	9	Tuberculosis.....	1,397	1,416
Malaria:			Typhoid fever.....	11	18
Acute.....	107	124	Whooping cough.....	10	3
Chronic.....	44	71	Yellow fever.....	0	3
Measles.....	0	6			

Mortality according to ages was distributed during the two years under comparison as follows:

Age (years).	1920	1921	Age (years).	1920	1921
0 to 1.....	1,803	1,852	51 to 60.....	538	500
1 to 5.....	696	753	61 to 70.....	362	341
6 to 10.....	177	246	Over 70.....	454	430
11 to 20.....	657	571	Age unknown.....	37	67
21 to 30.....	1,262	1,148			
31 to 40.....	930	1,016	Total.....	7,629	7,614
41 to 50.....	713	692			

Mortality from certain diseases for the period 1911 to 1921, inclusive, is shown by the following table:

Disease.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Beriberi.....	8	5	2	5	8	4	1	0	1	4	4
Diphtheria.....	1	0	2	2	1	1	0	11	15	14	8
Dysentery.....	236	253	160	152	157	174	82	101	331	168	292
Influenza.....	187	242	213	286	301	392	308	1,783	264	310	482
Leprosy.....	2	10	10	6	8	8	9	20	12	9	12
Malaria.....	259	264	191	170	244	268	313	216	219	195	151
Measles.....	8	5	17	50	2	0	0	0	38	6	0
Plague.....	20	20	5	24	4	0	5	1	1	28	5
Scarlet fever.....	1	0	0	0	0	0	0	0	0	0	0
Smallpox.....	2,440	762	451	153	15	0	0	0	11	34	5
Tuberculosis.....	1,441	1,395	1,429	1,457	1,694	1,656	1,213	1,380	1,660	1,412	1,397
Typhoid fever.....	25	17	14	15	15	16	17	11	16	18	11
Whooping cough.....	39	3	21	11	7	27	18	40	3	3	10
Yellow fever.....	13	40	6	3	0	0	2	4	5	3	0

#### Stillbirths—1911-1921.

The occurrence of stillbirths during the period 1911 to 1921, was reported as follows:

Year.	Number.	Year.	Number.
1911.....	343	1917.....	800
1912.....	664	1918.....	801
1913.....	743	1919.....	799
1914.....	649	1920.....	830
1915.....	707	1921.....	951
1916.....	822		

#### Death Rates for Certain Cities.

The following statement of death rates for certain cities in Brazil was published officially under date of December 22, 1921:

City.	Death rate.	City.	Death rate.
Ceara.....	32.80	Petropolis.....	20.80
Victoria.....	32.95	Campos.....	20.22
Manaos.....	31.67	Sao Paulo.....	19.98
Rio Grande.....	30.08	Bahia.....	19.62
Aracaju.....	30.03	Belem.....	19.51
Maceio.....	29.80	Ribeirao Preto.....	18.66
Recife.....	29.34	Sao Luis.....	18.31
Sant Anna do Livramento.....	26.80	Florianopolis.....	15.45
Santos.....	24.39	Curitiba.....	15.17
Campinas.....	20.97		

#### CZECHOSLOVAKIA.

##### Tuberculosis.

The following information has been taken from a report issued during the current year at Prague by the Ministry of Public Health and Physical Education of Czechoslovakia:

Tuberculosis increased in the Czech Provinces up to 1895, after which year it decreased until 1914. An increase was again noted



during the war years. Since the addition of Slovakia and Carpathian Russia to the Czech Provinces, tuberculosis mortality of all Czechoslovakia has been higher and its decrease slower. In the Czech Provinces tuberculosis increased during the World War only up to 1916. It appeared stationary from then until the outbreak of the influenza epidemic during the last quarter of the year 1918.

Conditions as regards tuberculosis are worse in Czechoslovakia than those present in England 70 years ago, it is stated, due to a higher mortality among the young and persons of working ages. The highest mortality from tuberculosis in Czechoslovakia was stated to be among the industrial and manufacturing classes, though a relatively high mortality from the disease was shown among persons employed in agriculture and forestry.

In cities there was noted a higher death rate than in rural districts, but with a decreased prevalence. The difference between rural and urban mortality was shown to be greater in Bohemia than in Moravia. The percentage distribution of tuberculosis according to form showed no marked variation from the picture usually presented, 82.8 per cent of all tuberculous deaths being reported as due to the pulmonary form. Tuberculosis was given as the principal cause of death in Czechoslovakia. Among males, the greatest percentage of deaths was between the ages of 20 and 29 years. (Population in 1921—13,595,816; area, 54,238 square miles.)

#### Antituberculosis Work.

There was stated to be a total of 143 antituberculosis associations, serving a population of 2,646,016, but large territories exist in which no antituberculosis work is being carried out. These are in south-east Bohemia, southeast Moravia, and northern Silesia. In Slovakia and Carpathian Russia antituberculosis work is scattered and rare. There were stated to be 89 dispensaries serving a population of 2,197,756. Of these, only 38 are in cities over 8,500, 11 being in Prague. For the treatment of tuberculosis there are 46 institutions with a total of about 5,700 beds, of which about 2,000 are for tuberculous children. There were stated to be 75 cities having over 8,500 population which have no tuberculosis dispensaries.

#### UNION OF SOUTH AFRICA.

##### Plague—Orange Free State—March, 1922.

During the first two weeks of March, 1922, four fatal cases of plague were reported in the Orange Free State, occurring on the Granville Farm, Winburg district, 3 miles northwest from Venterburg Road Station. The first three cases occurred in natives living in the same hut; the fourth case occurred in a native contact of these cases.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended May 19, 1922.<sup>1</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	Mar. 26-Apr. 1....	111	89	
Madras.....	Mar. 20-26.....	1	1	
Rangoon.....	Mar. 19-25.....	9	7	
Indo-China:				
Saigon.....	Feb. 19-Mar. 18...	10	7	City and surrounding country.
Philippine Islands:				
Province—				
Bulacan.....	Mar. 5-11.....	1	1	
Siam:				
Bangkok.....	do.....	2	1	

## PLAGUE.

Azores:				
Fayal Island—				
Horta.....	Feb. 2-8.....	4	2	
British East Africa:				
Uganda.....	Jan. 1-31.....	57	56	
Ceylon:				
Colombo.....	Mar. 19-Apr. 1....	2	2	One plague-infected rodent.
China:				
Hongkong.....	Apr. 23-May 6....	194	124	Chinese.
Ecuador:				
Guayaquil.....	Apr. 1-15.....	1		Rats examined, 3,000; plague-infected, 100.
Egypt.....				Jan. 1-Apr. 6, 1922: Cases, 63; deaths, 30.
City—				
Sues.....	Apr. 7-8.....	2	2	
Province—				
Minieh.....	Apr. 12.....	1		
India:				
Bombay.....	Mar. 5-11.....	30	29	
Calcutta.....	Mar. 26-Apr. 1....	4	4	
Karachi.....	do.....	37	31	
Madras Presidency.....	do.....	45	29	
Rangoon.....	Mar. 19-25.....	44	37	
Indo-China:				
Saigon.....	Feb. 26-Mar. 18...			Four plague-infected rats.
Java:				
East Java—				
Soerabaya.....	Mar. 5-11.....	6	6	
Peru.....				Mar. 16-31, 1922: Cases, 28; deaths, 14.
Senegal:				
Dakar.....	Mar. 1-31.....	1	1	
Siam:				
Bangkok.....	Mar. 5-11.....	2	2	
Union of South Africa:				
Orange Free State—				
Granville Farm.....	Mar. 1-15.....	4	4	Winburg district, in vicinity of Venterburg Road Station.

## SMALLPOX.

Arabia:				
Aden.....	Mar. 26-Apr. 1....		1	
British East Africa:				
Uganda.....	Jan. 1-31.....	36	3	
Canada:				
New Brunswick—				
Westmoreland County.....	Mar. 19-25.....	6		
Ontario—				
Toronto.....	Apr. 16-29.....	28		
Ceylon:				
Colombo.....	Mar. 26-Apr. 1....	2		
China:				
Amoy.....	Mar. 19-Apr. 1....	4		
Chungking.....	Mar. 5-11.....			Present.
Dairen.....	Mar. 13-19.....	1		Manchuria.
Foochow.....	Feb. 19-25.....	1		
Nanking.....	Mar. 12-25.....			Present

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received During Week Ended May 19, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Chosen:				
Fusan.....	Mar. 1-31.....	46	10	
S.oul.....	.....do.....	4	2	
Cuba:				
Cienfuegos.....	Apr. 23-29.....	1		
Matanzas.....	.....do.....			In Province, Apr. 16-30, 1922.
Santiago.....	Apr. 1-30.....	3		
Dominican Republic:				
San Pedro de Macoris.....	Apr. 9-22.....	77	9	Including vicinity.
Ecuador:				
Guayaquil.....	Apr. 1-15.....	1		
Finland.....	Mar. 16-31.....	16		
Haiti.....	.....do.....			Apr. 16-23, 1922: Present; a few cases.
India:				
Bombay.....	Mar. 5-11.....	7	2	
Calcutta.....	Mar. 26-Apr. 1.....	40	31	
Karachi.....	.....do.....	51	32	
Madras.....	Mar. 19-26.....	147	37	
Rangoon.....	Mar. 19-25.....	1	1	
Indo-China:				
Saigon.....	Feb. 19-Mar. 18.....	9	5	
Mexico:				
Manzanillo.....	Apr. 25-May 1.....		1	
Rumania:				
Cahul.....	Jan. 1-31.....	1		District.
Spain:				
Huelva.....	Feb. 1-28.....		1	
Seville.....	Mar. 26-Apr. 8.....		13	
Syria:				
Aleppo.....	Apr. 9-15.....			Present.
Turkey:				
Constantinople.....	Apr. 2-8.....	4	1	
Union of South Africa:				
Southern Rhodesia.....	Feb. 1-28.....	53		
Transvaal—				
Johannesburg.....	.....do.....	1		

## **TYPHUS FEVER.**

Algeria:				
Algiers.....	Apr. 1-20.....	3		
Oran.....	.....do.....		3	
Bulgaria:				
Sofia.....	Apr. 2-8.....	1		
Egypt:				
Cairo.....	Feb. 12-18.....	3	2	
Greece:				
Saloniki.....	Mar. 6-19.....	10		
Portugal:				
Oporto.....	Apr. 9-15.....	3		
Rumania:				
Cahul.....	Feb. 1-28.....	1		District.
Spain:				
Madrid.....	Mar. 1-31.....		10	
Syria:				
Diarbekir.....	Apr. 9-15.....			Present.
Mardin.....	.....do.....			Do.
Turkey:				
Constantinople.....	Apr. 2-8.....	4		
Union of South Africa:				
Transvaal—				
Johannesburg.....	Feb. 1-28.....	9	7	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

Reports Received from December 31, 1921, to May 12, 1922.

## **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Oct. 2-Dec. 31, 1921: Deaths, 37,749. (Corrected report.) Jan. 1-28, 1922: Deaths, 2,528.
Bombay.....	Oct. 30-Nov. 5.....	1	1	
Do.....	Jan. 29-Feb. 4.....	1	1	
Calcutta.....	Oct. 23-Dec. 31.....	71	60	
Do.....	Jan. 1-Mar. 23.....	332	279	
Karachi.....	Nov. 6-12.....	1	1	
Madras.....	Dec. 11-31.....	4	1	
Do.....	Jan. 1-Feb. 4.....	10	7	
Rangoon.....	Oct. 1-Dec. 31.....	30	24	
Do.....	Jan. 1-Feb. 25.....	30	25	
Indo-China:				
Saigon.....	Nov. 6-12.....	1	1	
Do.....	Jan. 29-Feb. 18.....	24	23	Including 100 km. surrounding country.
Java:				
West Java—				
Batavia.....	Nov. 1-7.....	2	2	At Lebak.
Philippine Islands:				
Manila.....	Nov. 13-Dec. 31.....	40	18	
Do.....	Jan. 1-Mar. 11.....	82	27	
Province—				
Bulacan.....	Dec. 25-31.....	1	1	
Do.....	Feb. 12-25.....	2	2	
Cavite.....	Jan. 1-7.....	1	1	
Cebu.....	Jan. 8-14.....	1	1	
Pampanga.....	Dec. 25-31.....	1	1	
Rizal.....	Jan. 15-28.....	18	12	
Zambales.....	Dec. 11-31.....	31	18	
Do.....	Jan. 1-7.....	5	4	
Poland.....				Aug. 14-Sept. 10, 1921: Cases, 4; deaths, 1.
Russia:				
Kharkoff.....	Jan. 28.....			Present.
Kief.....	Dec. 15-Jan. 11.....	259		
Latvia—				
Riga.....				At quarantine station in October, 1921: 1 case.
Lithuania.....				Present, Feb. 19, 1922, with 30 cases and mortality of 33 per cent, Kovno and vicinity.
Odessa.....	Jan. 28.....			Present.
Siam:				
Bangkok.....	Oct. 23-Dec. 24.....	8	4	
Do.....	Jan. 29-Mar. 4.....	7	3	

## **PLAGUE.**

Asia Minor:				
Smyrna.....	Nov. 27-Dec. 3.....	1	1	
Australia:				
New South Wales—				
Sydney.....	.....do.....	2	1	Dec. 7-13: 4 plague rats. Jan. 15-21, 1922: 1 plague rat.
Do.....	Jan. 29-Apr. 29.....	15	2	
Queensland—				
Aramac.....	Mar. 19-25.....	1	1	Inland town on railroad about 150 miles from coast.
Brisbane.....	Oct. 30-Dec. 31.....	27	20	Total, Aug. 22-Dec. 31, 1921: Cases, 41; deaths, 27. Total infected rats, 84. Total cases, Jan. 1-Mar. 18, 1922: 10. Total infected rats, 10.
Do.....	Jan. 1-Mar. 18.....	10		
Bundaberg.....	Mar. 5-11.....	1		
Cairns.....	Oct. 30-Dec. 31.....	6	3	Plague rats, 9.
Do.....	Jan. 1-7.....		1	Pestis minor.
Cooktown.....	Oct. 30-Nov. 5.....	1		
Ingham.....				Nov. 6-Dec. 24, 1921: Plague rats, 14. Jan. 1-14, 1922: 2 plague rats.
Instill.....				Nov. 27-Dec. 3, 1921: 1 plague rat.
Ipswich.....	Dec. 11-17.....	1	1	
Port Douglas.....	Nov. 13-19.....	1	1	
Townsville.....	Nov. 20-Dec. 3.....	2	2	Total cases, 27; deaths, 18.
Do.....	Jan. 1-14.....		2	To Jan. 14, 1922: Cases, 32; deaths, 21.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 12, 1922—Continued.

## PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Islands—				
Fayal.....	Jan. 16-22.....	2	2	Nov. 27-Dec. 31, 1921: Cases, 23; deaths, 9. Jan. 1-21, 1922: Cases, 13; deaths, 8. Jan. 22-Apr. 1, 1922: Cases, 62; deaths, 31; occurring at Arrifes, Capelas, Fenaes, Ribeira Grande, and Santo Antonio; distance from port of Ponta Delgada, 3 to 9 miles.
St. Michael.....				
Arrifes.....	Dec. 25-31.....	1	1	3 miles from port.
Do.....	Jan. 1-7.....	1		
Fenaes d'Ajuda.....	Nov. 27-Dec. 3.....			Present. 6 miles from port.
Do.....	Jan. 15-21.....	3	2	
Ribeira Grande.....	Nov. 13-Dec. 10.....	19	8	9 miles from port.
Do.....	Jan. 8-14.....	9	6	
Livramento.....	Dec. 4-10.....	2		Vicinity of Ponta Delgada.
Ponta Delgada.....	Do.....	1		
Brazil:				
Bahia.....	Oct. 30-Dec. 31.....	13	12	
Do.....	Jan. 1-Mar. 2.....	14	11	
Para.....	Feb. 6-12.....		1	
Pernambuco.....	Feb. 25-Mar. 4.....	1	1	
Porto Alegre.....	Feb. 12-18.....	3	2	
Rio de Janeiro.....	Jan. 22-28.....	1	1	
British East Africa:				
Uganda.....	Aug. 1-Dec. 31.....	256	229	Aug. 1-Oct. 31, 1921: Reports of inspectors, deaths, 343; reports of chiefs, deaths, 651.
Cape Verde Islands:				
St. Vincent.....	Mar. 16.....			Present: No plague mortality reported during previous 5-month period. August, 1921: Cases, 6; deaths, 3.
Ceylon:				
Colombo.....	Oct. 30-Dec. 31.....	13	10	Oct. 30-Dec. 24, 1921: Rodent plague, 6.
Do.....	Jan. 1-Mar. 18.....	27	25	Infected rats, 11.
Chile:				
Antofagasta.....				Mar. 5-11, 1922: 1 plague rat.
China:				
Amoy.....	Feb. 18-Mar. 4.....			Present in surrounding country.
Hongkong.....	Nov. 20-Dec. 17.....	6		
Do.....	Jan. 1-Apr. 22.....	215	134	
Ecuador:				
Guayaquil.....	Nov. 16-Dec. 31.....	18	6	Rats examined, 2,953; found infected, 90. Total, July-Dec. 15, 1921: Cases, 28. Jan. 1-Mar. 16, 1922: Rats examined, 18,000; found infected, 475.
Do.....	Jan. 1-Mar. 31.....	42	15	Jan. 1-Dec. 31, 1921: Cases, 356; deaths, 153. Jan. 1-Mar. 30, 1922: Cases, 56; deaths, 26.
Naranjito.....	Mar. 1-15.....	1		Feb. 12-18, 1922: 1 plague rodent. Mar. 12-16, 1922: 1 case, 1 death, septicemic.
Egypt:				
City—				
Alexandria.....	Dec. 5-30.....	7	2	
Do.....	Jan. 17-Mar. 16.....	8	5	
Port Said.....	Dec. 20.....	1		
Do.....	Mar. 15-21.....	2	2	
Suez.....	Nov. 22-Dec. 31.....	16	9	
Do.....	Jan. 2-Mar. 30.....	11	5	
Province—				
Assiout.....	Mar. 25.....	1	1	Septicemic.
Assouan.....	Feb. 28.....	1	1	Do.
Fayoum.....	Feb. 17-Mar. 9.....	5	1	
Gharbleh.....	Feb. 17-Mar. 27.....	5	1	
Girgeh.....	Jan. 12-Mar. 30.....	5		Do.
Kench.....	Dec. 1.....	1		Do.
Do.....	Jan. 21-Feb. 28.....	5	3	Pneumonic, 1 case, 1 death; septicemic, 1 case.
Minieh.....	Feb. 21-Mar. 9.....	3	3	Septicemic.
France:				
Dunkirk.....	Mar. 24.....		1	In hospital, from S. S. City of Genoa, from Bombay.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain: Liverpool.....				Mar. 31, 1922: Finding of 3 plague-infected rats reported; place, warehouse in which material from S. S. Warwickshire was stored. <sup>1</sup>
Greece: Preveza.....	Feb. 8.....			Outbreak. Port on the Ionian Sea.
India: Bombay.....	Oct. 23-Dec. 24.....	7	6	Oct. 23-Dec. 31, 1921: Cases, 11,229; deaths, 8,465.
Do.....	Jan. 1-Mar. 4.....	117	84	Jan. 1-Mar. 11, 1922: Cases, 25,229; deaths, 19,773.
Calcutta.....	Jan. 29-Mar. 25.....	16	16	
Karachi.....	Nov. 6-Dec. 31.....	5	5	
Do.....	Jan. 1-Mar. 25.....	176	129	
Madras.....	Dec. 11-17.....	1	1	
Madras Presidency.....	Nov. 13-Dec. 31.....	2,047	1,433	
Do.....	Jan. 1-Mar. 25.....	3,896	2,788	
Rangoon.....	Oct. 1-Dec. 31.....	139	129	
Do.....	Jan. 1-Feb. 25.....	257	231	
Indo-China: Saigon.....				Nov. 6-Dec. 24, 1921: Rodent plague, 10. Jan. 8-Feb. 4, 1922: Rodent plague, 8.
Italy: Catania.....	Nov. 27.....	1	1	Total, Oct. 16-Nov. 27, 1921: Cases, 8 (of which 1 doubtful); deaths, 5. Jan.-Feb., 1922: 23 plague-infected rats found.
Naples (Province)— Torre Annunziata.....	Oct. 22-Dec. 27.....	2		17 miles from city of Naples.
Venice.....	Oct. 27.....	1		
Java.....				Islands of Java and Madoera; Nov. 1-Dec. 31, 1921: Deaths, 1,781, Jan. 1-Feb. 28, 1922: Deaths, 2,571.
East Java— Soerabaya.....	Oct. 30-Dec. 10.....	11	12	
Do.....	Jan. 1-Mar. 4.....	7	7	
Madagascar: Tananarive.....	Jan. 23-Feb. 29.....	6	5	Bubonic, pneumonic, and septicemic.
Mauritius (Island).....				Jan. 23-Feb. 6, 1922: Cases, 12; deaths, 3.
Port Louis.....	Oct. 29-Dec. 30.....	241	142	Plague-infected rats, 176; plague-infected cats, 36. (Corrected report.) Dec. 1-30, 1921: Dead rats found, 155; dead cats, 4.
Do.....	Dec. 31-Jan. 22.....	16	6	Dead rats found, Dec. 31, 1921-Jan. 11, 1922, 17.
Mesopotamia: Bagdad.....	Oct. 1-31.....	1	1	
Do.....	Feb. 1-28.....	2	1	
Mexico: Tampico.....	Mar. 26-Apr. 1.....	1		Dec. 18-31, 1921: Infected rodents found, 5; total, Jan. 1-Dec. 3, 1921, infected rodents, 322; Jan. 1-Apr. 8, 1922, 14 plague-infected rodents.
Vera Cruz.....				One infected rodent caught Dec. 5, 1921. Apr. 4-28, 1922: 3 infected rodents found.
Peru.....				Nov. 17-Dec. 31, 1921: Cases, 94; deaths, 35. Occurring in Callao, Huacho, Huaras, Lima, Magdalena Vieja, Paiza, Salaverry, and Sechura, Jan. 1-Feb. 28, 1922: Cases, 141; deaths, 62. (Corrected report to Feb. 15, 1922.)
Localities— Bambamarca.....	Jan. 1-15.....			Present. Rural.
Barranco.....	Jan. 16-31.....	1		
Callao.....	Jan. 1-Feb. 28.....	7	4	Rural. Year, 1921: Deaths, 30.

<sup>1</sup> Public Health Reports, Mar. 31, 1922, p. 784.



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 12, 1922—Continued.

## PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Localities—Continued.				
Casma.....	Feb. 1-28.....	11	3	
Chiclayo.....	Jan. 16-Feb. 28.....	19	16	
Chilca.....	Jan. 16-Feb. 15.....	11	2	
Cutervo.....	Jan. 1-15.....	1	1	Rural.
Guadalupe.....	Jan. 1-31.....	7	2	
Huacho.....	Jan. 1-Feb. 15.....	3		
Hualgayoc.....	Jan. 16-31.....			Province. Present.
Huaral.....	Jan. 1-15.....	2		
Jayanca.....	do.....			Present.
Lambayeque.....	Jan. 16-Feb. 15.....	3	1	
Lima.....	Jan. 1-Feb. 28.....	14	4	In district, 20 cases, 6 deaths.
Mollendo.....	Feb. 1-28.....	3		
Pacasmayo.....	do.....	1		
Payta.....	Jan. 1-Feb. 28.....	28	21	
Piura.....	Feb. 1-15.....	1		
Salaverry.....	Jan. 16-31.....	1		
San Pedro.....	Jan. 1-15.....	1		
Sullana.....	Jan. 1-Feb. 28.....	3	3	
Trujillo.....	Feb. 1-15.....			Present.
Tumbez.....	do.....	4		
Portugal:				
Lisbon.....	Dec. 15.....	1	1	
Portuguese West Africa:				
Angola:				
Loanda.....	Oct. 9-Nov. 5.....		2	
Do.....	Jan. 29-Feb. 4.....		2	
Mossamedes.....	Feb. 14.....			Present. In vicinity Mar. 1-22, 1922: Cases, 11. No cases reported in city since Feb. 28, 1922.
Rhodes (Island) (Aegean Sea).....	Oct. 13.....	3	1	
Senegal:				
Dakar.....	Feb. 1-28.....	2		Jan. 1-31, 1922: 1 rodent plague.
Siam:				
Bangkok.....	Oct. 23-Dec. 31.....	7	6	
Do.....	Jan. 8-Mar. 4.....	35	26	
Straits Settlements:				
Singapore.....	Nov. 6-Dec. 31.....	3	3	
Do.....	Jan. 15-Mar. 18.....	37	18	
Syria:				
Beirut.....	Oct. 9-Nov. 20.....	10	4	
Turkey:				
Constantinople.....	Jan. 1-7.....	1		Mar. 26-Apr. 1, 1922: One death.
Union of South Africa:				
Orange Free State—				
Boschrand Farm.....	Jan. 25.....	3	3	10 miles from Kroonstad.
Bothaville.....	Nov. 19.....			Plague-infected mouse found.
Gelukfontein Farm.....	Feb. 25.....			Plague mortality among rodents.
Hoopstad.....	Dec. 4-10.....	1		In native herd boy.
Klipfontein Farm.....	Feb. 10.....	1	1	12 miles from Bothaville. Plague infection found in rats on adjoining farm, week ended Feb. 4, 1922.
Rientfontein Farm.....	Feb. 17.....			Plague-infected squirrel found.
On vessel:				
S. S. City of Genoa.....	Mar. 9-15.....	4	2	At Suez and Port Said, Egypt, from Karachi and Bombay, India, for Plymouth, England. One fatal case at sea en route to Suez; 1 case on arrival. At Port Said, 2 cases, of which 1 fatal. At Dunkirk, France, Mar. 24, 1922: Several cases, one fatal case in hospital at Dunkirk.
S. S. Polycarp.....	Feb. 3.....	1		At Para, Brazil, from Ceara, via Manaus, Maranham, and Para; for New York.
S. S. Tango Maru.....	Dec. 31.....	1		At Thursday Island Quarantine, Australia, from Kobe, via Nagasaki, Hongkong, Manila, and Zamboanga.
S. S. Warwickshire.....	Feb. 12.....			At Liverpool, England, from Rangoon. Plague rats, 27; 1 plague mouse.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **SMALLPOX.**

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	Jan. 1-Mar. 31....	4		
Arabia:				
Aden.....	Dec. 25-31.....		1	
Do.....	Jan. 8-14.....		1	
Asia Minor:				
Smyrna.....	Jan. 15-21.....	1		In district.
Bolivia:				
La Paz.....	Aug. 1-Dec. 31....	60	41	
Do.....	Jan. 1-Feb. 28....	32	21	
Brazil:				
Bahia.....	Nov. 6-Dec. 17....	4		
Do.....	Jan. 8-Feb. 4.....	2		
Rio de Janeiro.....	Nov. 13-Dec. 31....	13	2	
Do.....	Jan. 1-Apr. 1.....	50	16	
Santos.....	Feb. 20-26.....		1	
Sao Paulo.....	Oct. 31-Dec. 25....	11		
Do.....	Dec. 26-Jan. 8.....	2		
British East Africa:				
Uganda.....	Aug. 1-Dec. 31....	33	6	
Canada:				
British Columbia—				
Vancouver.....	Dec. 25-31.....	3		
Do.....	Jan. 29-Feb. 4.....	1		
Victoria.....	Mar. 12-18.....	1		
Manitoba.....				Year 1921: Cases, 71.
Winnipeg.....	Nov. 20-Dec. 3.....	2		
Do.....	Apr. 2-8.....	3		
New Brunswick—				
Charlotte County				
St. Stephen.....	Dec. 11-17.....	2		Dec. 17, 1921: 31 cases occurring at Andersonville and Blacks Harbor. Dec. 18-24, 1921: Cases 3. Dec. 25-31, 1921: Cases, 2. Feb. 10-20, 1922: Cases, 2. Dec. 11-31, 1921: Cases, 3. Feb. 12-25, 1922: Cases, 4. 20 miles from Campbellton.
Restigouche County.....				
Charlo.....	Feb. 19-25.....	2		
Westmoreland County.....	Mar. 5-Apr. 1.....	16		
York County.....	Dec. 11-17.....	1		
Do.....	Jan. 29-Feb. 4.....	1		
Ontario.....				Dec. 1-31, 1921: Cases, 128. Jan. 1-31, 1922: Cases, 170; Feb. 1-Mar. 31, 1922: Cases, 208.
Fort William and Port Arthur.....	Jan. 1-21.....	3		
Hamilton.....	Jan. 22-Mar. 25....	4		
Kingston.....	Jan. 17-Feb. 11....	5		
Niagara Falls.....	Dec. 11-24.....	2		
Do.....	Jan. 15-Apr. 22....	47		Jan. 16-20, 1922: Two cases reported.
North Bay.....	Feb. 12-18.....	1		
Ottawa.....	Dec. 11-24.....	17		
Do.....	Jan. 1-Apr. 15....	34		
Sault Ste. Marie.....	Jan. 15-21.....	1		
Toronto.....	Dec. 11-24.....	4		
Do.....	Jan. 1-Apr. 8.....	54		
Windsor.....	Jan. 8-Mar. 4.....	3		
Quebec—				
Montreal.....	Dec. 11-24.....	1		
Saskatchewan—				
Regina.....	Jan. 1-Feb. 11....	4		
Saskatoon.....	Dec. 1-18.....	6		
Do.....	Feb. 5-19.....	3		
Canal Zone:				
Ancon.....				Admitted to hospital by transfer from Panama, Nov. 30, 1921, 1 case. Arrived on sailing vessel from a village on south coast.
Ceylon:				
Colombo.....	Nov. 27-Dec. 3.....	1		Port case.
Do.....	Jan. 29-Mar. 4.....	5		One port case.
Chile.....				Jan.-Sept., 1921: Cases, 5,500 (approximately); deaths, 2,500 (approximately). Nov. 15-21, 1921: Diffused in southern provinces; not epidemic.
Concepcion.....	Nov. 23-Dec. 26....		25	Nov. 15-21, 1921: Present. In vicinity, at Hualqui, cases, 32; deaths, 5. Dec. 4-17, 1921: Present.
Do.....	Dec. 27-Mar. 13....		42	Present.
Coronel.....	Nov. 15-Dec. 17....			Present.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Chile—Continued.				
Curanilahue.....	Nov. 15-21.....	4		
Lota.....				Oct. 28, 1921-Jan. 31, 1922: Cases, 879; deaths, 338.
Ollague.....	Mar. 12-25.....	1		Reported Mar. 16.
Osorno.....				From beginning of outbreak to Feb. 15, 1922: Cases, 87.
Talcahuano.....	Nov. 15-Dec. 24.....	6		Jan. 8-28, 1922: Present.
Do.....	Jan. 29-Feb. 18.....	5		
Temuco.....	Nov. 15-21.....	9		From beginning of outbreak to Feb. 15, 1922: Cases, 122.
Valparaiso.....	Oct. 23-Dec. 31.....		94	
Do.....	Jan. 1-Mar. 25.....		39	
China:				
Amoy.....	Nov. 16-Dec. 31.....		7	Nov. 23-29, 1921: Present. Jan. 22-28, 1922: Present.
Do.....	Jan. 1-Mar. 18.....		13	
Antung.....	Nov. 28-Dec. 18.....	4	1	
Do.....	Mar. 19-26.....	1		
Canton.....	Dec. 1-31.....			Present.
Changsha.....	Jan. 16-22.....	1		
Chungking.....	Nov. 6-Dec. 31.....			Do.
Do.....	Jan. 1-Mar. 4.....			Do.
Foochow.....	Nov. 6-Dec. 31.....			Do.
Do.....	Jan. 1-Mar. 18.....			Do.
Hankow.....	Nov. 13-Dec. 31.....			Do.
Do.....	Jan. 1-21.....	2		
Harbin.....	Nov. 14-Dec. 11.....	5		
Do.....	Dec. 26-Mar. 12.....	4		
Hongkong.....	Dec. 3-31.....	5		
Do.....	Jan. 1-Mar. 18.....	53	39	
Mukden.....	Nov. 20-Dec. 31.....			Do.
Do.....	Jan. 15-Mar. 18.....			Do.
Nanking.....	Nov. 20-Dec. 17.....			Do.
Do.....	Jan. 15-Mar. 15.....			Do.
Shanghai.....	Oct. 31-Dec. 31.....	23	194	Cases, foreign; deaths, Chinese and foreign. Population: Native, 790,000; foreign, 24,000. Corrected report.
Do.....	Jan. 2-Apr. 2.....	34	500	Cases, foreign; deaths, native. Jan. 14, 1922: Seriously prevalent.
Tientsin.....	Dec. 11-17.....	2		In Mission Hospital.
Tsingtau.....	Jan. 1-Mar. 19.....	35	14	
Chosen (Korea):				
Fusan.....	Dec. 1-31.....	3	1	
Do.....	Jan. 1-Feb. 28.....	80	19	
Gensan.....	Feb. 1-28.....	1		
Seoul.....	Jan. 1-Feb. 28.....	8	3	
Colombia:				
Cartagena.....	Nov. 22-28.....		1	
Santa Marta.....	Feb. 19-25.....			Present.
Cuba.....				Dec 4-31, 1921: Cases, 361. Jan. 1-31, 1922: Cases, 257.
Antilla.....	Dec. 12-31.....	3		At Preston.
Do.....	Jan. 8-Feb. 4.....	13	1	
Cienfuegos.....	Jan. 22-Apr. 1.....	10	1	Two cases from outside city limits. Apr. 16-22, 1922: Cases, 6, found at Senado, about 25 miles distant.
Nuevitas.....	Apr. 10-16.....	3		
Santiago.....	Jan. 1-Feb. 28.....	8	1	
Dominican Republic.....				Oct. 1-31, 1921: Cases, 653; deaths, 54. Jan. 2-Feb. 4, 1922: Cases, 6,922; deaths, 185.
Puerto Plata.....	Jan. 13.....	100	5	In district, widely diffused, with 1,000 estimated cases with 100 deaths.
San Pedro de Macoris.....	Nov. 20-Dec. 31.....	31	1	Estimate of about 500 cases of smallpox in the district of Macoris; of these, 50 within the city limits.
Do.....	Jan. 14-Feb. 4.....	122		In surrounding country, Feb. 12-25: 66 cases. Feb. 26-Apr. 1: About 60 cases.
Santo Domingo.....	Nov. 15-Dec. 5.....			In district, 401 cases estimated. Dec. 17-24, 1921: Present in vicinity. Jan. 9-16, 1922: Insurrounding country, 1,745 cases (estimated). Mar. 19-Apr. 1, 1922: About 20 cases, with 1 death, in surrounding country. Apr. 2-15, 1922: Cases, 25; deaths, 8.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil.....	Nov. 16-Dec. 3.....	7	.....	And vicinity.
Do.....	Jan. 1-Mar. 31.....	4	.....	
Egypt:				
Alexandria.....	Nov. 26-Dec. 2.....	1	1	
Cairo.....	.....do.....	2	.....	
Port Said.....	Dec. 20-26.....	1	.....	Dec. 16-23, 1921: 1 case.
Do.....	Jan. 22-28.....	1	.....	
Finland:				
Do.....	.....	.....	.....	Nov. 16-30, 1921: 1 case.
				Feb. 1-15, 1922: Cases, 19. Mar.
				1-15, 1922: Cases, 13.
				Dec. 27, 1921-Jan. 2, 1922: Cases, 2
Flume.....				
France:				
Bordeaux.....	Mar. 31-Apr. 6.....	.....	1	
Great Britain:				
Manchester.....	Jan. 1-7.....	4	.....	
Nottingham.....	Dec. 4-31.....	18	.....	
Do.....	Jan. 8-Mar. 25.....	10	.....	
Swansea.....	Jan. 17-23.....	2	.....	Imported on vessel from Persian Gulf.
Haiti.....				Jan. 22-Apr. 8, 1922: A few cases.
Cape Haitien.....	Dec. 11-24.....	8	.....	
Do.....	Jan. 1-Feb. 18.....	21	1	
Port au Prince.....	Dec. 11-31.....	.....	.....	Present.
Do.....	Jan. 15-21.....	2	.....	
India.....				
Bombay.....	Oct. 23-Dec. 31.....	3	2	Oct. 2-8, 1921: Deaths, 28. Oct.
Do.....	Jan. 1-Mar. 4.....	16	3	23-Nov. 19, 1921: Deaths, 266.
Calcutta.....	Nov. 13-Dec. 31.....	37	28	Nov. 27-Dec. 31, 1921: Deaths,
Do.....	Jan. 1-Mar. 18.....	204	207	533. Jan. 1-28, 1922: Deaths,
Karachi.....	Nov. 11-Dec. 31.....	28	9	760.
Do.....	Jan. 1-Mar. 25.....	143	77	
Madras.....	Nov. 13-Dec. 31.....	183	59	
Do.....	Jan. 1-Mar. 25.....	958	339	
Rangoon.....	Oct. 1-Dec. 31.....	6	.....	
Do.....	Jan. 15-Feb. 25.....	85	1	
Indo-China:				
Saigon.....	Dec. 18-24.....	1	1	City and district.
Do.....	Jan. 8-Feb. 18.....	8	3	Do.
Italy:				
Catania.....	Feb. 20-26.....	1	.....	In Province.
Genoa.....	Nov. 10-20.....	1	.....	
Messina.....				
Messina.....	Nov. 28-Dec. 4.....	1	.....	
Pettineo.....	Nov. 14-Dec. 4.....	2	.....	
Venice.....	Jan. 30-Feb. 5.....	2	.....	
Japan:				
Kobe.....	Jan. 23-Apr. 3.....	4	2	
Nagasaki.....	Mar. 13-19.....	1	.....	
Taiwan Island.....	Dec. 1-31.....	2	1	
Do.....	Feb. 14-Mar. 10.....	2	1	
Yokohama.....	Jan. 9-29.....	3	.....	Corrected report.
Java:				
East Java--				
Soerabaya.....	Jan. 1-7.....	4	.....	
West Java--				
Bandoeng.....	Nov. 18-Dec. 8.....	2	.....	
Batavia.....	Nov. 18-Dec. 22.....	11	9	City and Province.
Do.....	Dec. 30-Mar. 2.....	5	3	In Province: Cases, 23; deaths, 4;
Buitenzorg.....	Nov. 25-Dec. 8.....	7	1	13 cases, with 3 deaths, not
Krawang.....	Nov. 18-24.....	1	.....	locally stated. Feb. 3-Mar. 23,
Lebak.....	Nov. 18-Dec. 8.....	7	4	1922: Cases, 18; deaths, 2.
Pandeglang.....	Nov. 25-Dec. 1.....	.....	1	
Tangerang.....	Nov. 18-Dec. 8.....	5	1	
Liberia:				
Grand Bassa County.....	Nov. 30.....	.....	.....	Present at Lower Buchanan.
Mesopotamia:				
Bagdad.....	Oct. 1-Nov. 30.....	117	59	Epidemic, with high mortality,
Do.....	Feb. 1-28.....	6	4	November, 1921.
Mexico:				
Chihuahua.....	Dec. 5-11.....	.....	1	
Do.....	Jan. 23-Feb. 19.....	.....	2	
Guadalajara.....	Nov. 1-Dec. 31.....	6	.....	
Do.....	Jan. 1-Mar. 4.....	35	6	
Mexico City.....	Nov. 20-Dec. 31.....	64	.....	Including municipalities in Federal District.
Do.....	Jan. 1-Mar. 25.....	208	.....	Do.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico—Continued.				
Monterey.....	Apr. 12.....		2	Epidemic. Apr. 28: Estimated about 16 deaths daily.
Saltillo.....	Jan. 29-Apr. 8.....		2	From San Salvador, Zacatecas, 1;
San Luis Potosi.....	Dec. 18-24.....		2	from Tampico, 1.
Do.....	Jan. 8-Apr. 1.....		18	
Torreón.....	Dec. 1-31.....		134	
Do.....	Jan. 1-Feb. 28.....		82	
Newfoundland:				
St. Johns.....	Feb. 4-10.....	1		
Nicaragua:				
Managua.....	Mar. 5.....			Present.
Palestine:				
Jerusalem.....	Jan. 10-Feb. 20.....	27		
Panama:				
Bocas del Toro Province—				
Sursuba.....	Jan. 18-Feb. 8.....	11		Village 24 miles from Almirante.
Chiriqui Province.....	Dec. 22.....			Present.
Do.....	Jan. 26.....			Present with center of prevalence at Boquete Bajo. At Boquete Bajo, Jan. 22-Mar. 23, 1922, 59 admissions to lazaretto: On Mar. 20, 1922, 16 cases of smallpox, confluent type.
Panama.....	Dec. 14.....	1		On Dec. 21, 1921: 1 additional case from country district of Sabanas admitted to hospital. Total admissions, Jan. 1-Dec. 21, 1921, 207.
Peru:				
Lima.....	Nov. 1-Dec. 31.....		3	
Poland.....				Aug. 14-Dec. 31, 1921: Cases, 578; deaths, 146. Exclusive of Brest-Litovsk, Minsk, and Wilno districts.
Portugal:				
Lisbon.....	Nov. 13-Dec. 31.....	48	12	
Do.....	Jan. 1-Apr. 18.....	173	9	1 death in January, 1 in February, 7 deaths in March.
Portuguese East Africa:				
Lourenço Marques.....	Oct. 1-Nov. 5.....	2	4	
Portuguese West Africa:				
Angola:				
Loanda.....	Oct. 9-Dec. 31.....		7	
Do.....	Jan. 1-14.....		3	
Rumania:				
Bucharest.....	Nov. 1-30.....		33	
Chisinau.....	Dec. 1-31.....			District.
Do.....	Feb. 1-28.....	17		Do.
Russia:				
Estonia.....	Oct. 1-Dec. 31.....	38		
Do.....	Feb. 1-28.....	1		
Lettonia.....	do.....	75		Name of country officially changed from Latvia to Lettonia.
Do.....	Jan. 1-Feb. 28.....	38		
Senegal:				
Dakar.....	do.....	5	3	
Serbia:				
Belgrade.....	Oct. 2-Nov. 26.....	16	4	
Siam:				
Bangkok.....	Oct. 23-Nov. 5.....	1		
Siberia:				
Vladivostok.....	Feb. 22-28.....	1	1	
Spain:				
Barcelona.....	Jan. 8-14.....		1	
Corunna.....	Apr. 2-8.....		1	
Huelva.....	Oct. 1-Dec. 31.....		3	
Do.....	Jan. 1-31.....		1	
Malaga.....	Nov. 1-Dec. 31.....		60	
Do.....	Jan. 1-31.....		8	
Seville.....	Nov. 16-Dec. 31.....		7	
Do.....	Jan. 6-Mar. 25.....		55	
Valencia.....	Jan. 22-Mar. 25.....		1	
Straits Settlements:				
Singapore.....	Nov. 6-Dec. 24.....	49	13	
Do.....	Jan. 1-Mar. 18.....	189	37	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Switzerland:				
Glarus, Canton.....	Dec. 10.....	.....	.....	Epidemic.
Lucerne.....	Feb. 1-23.....	12	.....	
St. Gall.....	Feb. 12-18.....	1	.....	
Zurich.....	Dec. 10.....	2	.....	In vicinity.
Do.....	Mar. 12-Apr. 8.....	6	.....	
Syria:				
Adana.....	Dec. 18-24.....	.....	.....	Present.
Do.....	Jan. 1-14.....	.....	.....	Do.
Aleppo.....	Dec. 18-24.....	.....	.....	Do.
Do.....	Jan. 1-Apr. 8.....	.....	.....	Do.
Alexandretta.....	do.....	.....	.....	Do.
Beirut.....	Oct. 9-Nov. 13.....	5	2	
Do.....	Jan. 8-Mar. 27.....	24	11	Dec. 29, 1921-Jan. 4, 1922: Cases, 14; deaths, 2.
Cilicia.....	Jan. 8-Feb. 4.....	.....	.....	Present.
Diarbekir.....	Dec. 18-24.....	.....	.....	Do.
Do.....	Jan. 1-Feb. 4.....	.....	.....	Do.
Mersina.....	Dec. 18-24.....	.....	.....	Do.
Do.....	Jan. 1-7.....	.....	.....	Do.
Urfa.....	Dec. 18-24.....	.....	.....	Do.
Do.....	Jan. 1-Feb. 4.....	.....	.....	Do.
Tunis:				
Tunis.....	Nov. 26-Dec. 23.....	17	15	
Do.....	Jan. 1-Apr. 8.....	4	6	
Turkey:				
Constantinople.....	Nov. 27-Dec. 24.....	20	4	
Do.....	Jan. 15-Apr. 8.....	115	25	
Union of South Africa.....				Nov. 1-Dec. 31, 1921: Cases, 326; deaths, 6 (colored). White, 10 cases. Jan. 1-31, 1922: Cases, 37; deaths, 3.
Cape Province.....	Nov. 5-Dec. 31.....	.....	.....	Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 42; deaths, 1 (colored).
Do.....	Jan. 8-Mar. 11.....	.....	.....	Outbreaks.
Natal.....	Jan. 8-Feb. 25.....	.....	.....	Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 209; deaths, 5 (colored).
Orange Free State.....	Oct. 23-Dec. 24.....	.....	.....	Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 8 (colored).
Do.....	Feb. 5-25.....	.....	.....	Outbreaks.
Southern Rhodesia.....	Dec. 29-Mar. 15.....	232	.....	Natives.
Transvaal.....	Oct. 23-Dec. 31.....	.....	.....	Outbreaks.
Do.....	Jan. 1-Feb. 25.....	.....	.....	Outbreaks. Dec., 1921: Cases, 15
				Nov. 1-Dec. 31, 1921: Cases, 22 (colored). Among white population, 8 cases, State not designated.
Johannesburg District.....	Dec. 1-31.....	1	.....	
Do.....	Jan. 1-7.....	.....	.....	Outbreaks.
Venezuela:				
Ciudad Bolivar.....	Mar. 22.....	3	.....	
Yugoslavia.....				July 3-30, 1921: Cases, 37.
Bosnia Herzegovina.....	July 3-9.....	3	.....	
Croatia Slavonia.....	do.....	1	.....	
Dalmatia.....	do.....	1	.....	
Serbia.....	do.....	3	.....	
Belgrade.....	Dec. 11-17.....	4	.....	
Do.....	Jan. 1-Feb. 18.....	6	.....	
Slovenia.....	July 3-9.....	1	.....	
Voivodina.....	do.....	3	.....	
On vessels:				
S. S. Empire State.....	Apr. 7.....	1	.....	At Honolulu, Hawaii, Mar. 31. In Chinese woman, embarked at Hongkong Mar. 15; unvaccinated; arrived Shanghai Mar. 19, states did not go ashore; at Kobe Mar. 22; left Yokohama Mar. 24. Case was passed on inspection; developed Apr. 7, 1922.
S. S. Victoria.....	Jan. 10.....	1	1	At Thursday Island Quarantine, Australia. Vessel left Hongkong Jan. 3; case isolated Jan. 10. Vessel left for Townsville, Sydney, and Melbourne. Released at Melbourne Feb. 4, 1922.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
On vessels—Continued.				
S. S. West O'Rowa.....	Jan. 5-8.....	3	1	At Kobe, Japan, from Shanghai, China.
S. S. —.....	Jan. 17-23.....	2	.....	At Swansea, Wales, from Persian Gulf.

## **TYPHUS FEVER.**

Algeria:				
Algiers.....	Nov. 1-Dec. 31....	3	.....	
Do.....	Jan. 11-Mar. 31....	10	1	
Oran.....	Dec. 21-31.....	1	.....	
Do.....	Jan. 1-Mar. 31....	24	11	
Asia Minor:				
Brousa.....	Jan. 15-21.....	1	.....	
Austria:				
Vienna.....	Dec. 4-31.....	10	.....	
Do.....	Jan. 1-28.....	9	1	
Bolivia:				
La Paz.....	Aug. 1-Dec. 31....	121	98	
Do.....	Jan. 1-31.....	15	12	
Brazil:				
Sao Paulo.....	Feb. 6-12.....	12	2	
Bulgaria:				
Sofia.....	Dec. 18-24.....	1	.....	
Do.....	Feb. 12-Mar. 18....	2	.....	
Chile:				
Concepcion.....	Nov. 22-Dec. 26....	.....	3	
Do.....	Jan. 3-30.....	.....	3	
Talcahuano.....	Jan. 29-Feb. 18....	3	.....	
Valparaiso.....	Oct. 23-Nov. 25....	.....	6	
Do.....	Jan. 1-7.....	.....	1	
China:				
Antung.....	Dec. 26-Jan. 1....	1	.....	
Do.....	Feb. 6-12.....	1	.....	
Harbin.....	Nov. 7-Dec. 25....	12	.....	
Do.....	Dec. 26-Mar. 19....	37	.....	Jan. 23, 1922: Reported extending from Soviet Russia along railway line to maritime provinces.
Czechoslovakia:				
Prague.....	Jan. 22-Feb. 18....	3	.....	
Danzig (free city).....	Feb. 23.....	1	.....	In district, at Zoppot. In merchant from Warsaw.
Egypt:				
Alexandria.....	Nov. 19-Dec. 31....	3	1	
Do.....	Jan. 15-Apr. 1....	20	5	
Cairo.....	Oct. 1-Dec. 31....	18	14	
Do.....	Jan. 1-Feb. 11....	10	5	
Port Said.....	Jan. 22-Apr. 8....	3	.....	
Finland:				
Helsingfors.....	Jan. 1-31.....	1	.....	In courier from Moscow.
Germany:				
Breslau.....	Dec. 25-31.....	2	1	
Do.....	Jan. 1-Feb. 5....	55	8	Including district.
Frankfort-on-Oder.....	Feb. 16.....	26	.....	In persons returning from Russia.
Hamburg.....	Dec. 11-17.....	4	.....	
Great Britain:				
Birkenhead.....	Apr. 6.....	13	3	Vicinity of Liverpool.
Glasgow.....	Dec. 25-31.....	1	.....	
London.....	Apr. 29.....	1	.....	Stated to have probably been contracted in Warsaw.
Greece:				
Saloniki.....	Jan. 23-29.....	1	.....	
Italy:				
Palermo <sup>1</sup> .....	Jan. 15-28.....	3	1	
Mesopotamia:				
Bagdad.....	Oct. 1-Dec. 31....	3	9	
Do.....	Feb. 1-28.....	1	.....	

<sup>1</sup> These cases are stated to have been erroneously reported and will be omitted in future issues of the Public Health Reports.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 31, 1921, to May 12, 1922—Continued.

## TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Mexico City.....	Nov. 20-Dec. 31...	242		Including municipalities in Federal District.
Do.....	Jan. 1-Mar. 25.....	275		Do.
San Luis Potosi.....	Dec. 18-24.....		1	Dec. 25-31, 1921: Present.
Do.....	Jan. 8-Feb. 25.....			Present. One death.
Palestine:				
Jerusalem.....	Dec. 27-Apr. 10...	13		
Poland.....				Aug. 14-Nov. 5, 1921: Cases, 2,399; deaths, 173. Nov. 6-Dec. 3, 1921: Cases, 1,512; deaths, 105. Nov. 20-Dec. 10, 1921: Cases, 1,162; deaths, 80. Dec. 4-31, 1921: Cases, 3,600; deaths, 313. Jan. 1-7, 1922: Cases, 1,322. All statistics are exclusive of Brest-Litovsk, Minsk, and Wilno districts.
District—				
Bialystok.....	Nov. 20-Dec. 10...	116	3	
Do.....	Jan. 1-7.....	253		
Galicia—				
Lemberg.....	Jan. 3.....	229		Jan. 1-7, 1922: Cases, 61.
Kielce.....	Nov. 20-Dec. 10...	31	8	
Do.....	Jan. 1-7.....	28		
Krakow.....	Nov. 20-Dec. 10...	45	6	
Do.....	Jan. 1-7.....	53		
Lodz.....	Nov. 20-Dec. 10...	67		
Do.....	Jan. 1-7.....	41		
Lublin.....	Nov. 20-Dec. 10...	59		
Do.....	Jan. 1-7.....	147		
Lwow.....	Nov. 20-Dec. 10...	121	16	
Nowogrod.....	do.....	249	15	
Polosia.....	do.....	83	5	
Do.....	Jan. 1-7.....	450		
Posen.....	do.....	1		
Stanislawow.....	Nov. 20-Dec. 10...	88	8	
Do.....	Jan. 1-7.....	54		
Tarnopol.....	Nov. 20-Dec. 10...	86	17	
Do.....	Jan. 1-7.....	28		
Volhynia.....	Nov. 20-Dec. 10...	89	4	
Do.....	Jan. 1-7.....	107		
Warsaw.....	Nov. 20-Dec. 10...	81	2	
Do.....	Jan. 1-7.....	32		
Warsaw City.....	Nov. 20-Dec. 10...	47	5	
Do.....	Jan. 1-7.....	67		
Portugal:				
Oporto.....	Jan. 8-Apr. 8.....	27	2	
Rumania:				
Bucharest.....	Nov. 1-30.....	3		District.
Cahul.....	Jan. 1-31.....	6		District. Dec. 1-31, 1921: Recurrent typhus; cases, 19.
Chisinau.....	Nov. 1-Dec. 31.....	28		District.
Do.....	Feb. 1-28.....	10		Nov. 28-Dec. 10, 1921: In Soviet Russia, cases, 7,681.
Russia.....				Recurrent typhus, 33 cases.
Esthonia.....	Oct. 1-Dec. 31.....	53		Corrected (report) Oct. 1-Nov. 30, 1921: Cases, 127.
Do.....	Jan. 1-Feb. 24.....	48		
Lettonia.....	Oct. 1-Dec. 31.....	341		
Do.....	Jan. 1-Feb. 18.....	456		
Litau.....	Jan. 15-Feb. 1.....	4		
Lithuania.....	Jan. 1-31.....	814	73	Recurrent typhus: Cases, 357 deaths, 12. Typhus: Feb. 19, 1922, 460 cases, vicinity of Kovno, with mortality of 7 per cent.
Perm.....	Nov. 23-Dec. 10...	1,408		Oct. 1-31, 1921: Cases, 839, Nov. 1-31, 1921: Cases, 2,389.
Saratov District—				
Markstadt.....				Sept. 1-Dec. 31, 1921: Cases, 1,987; mortality, about 10 per cent; hospital cases.
Serbia:				
Belgrade.....	Oct. 2-Nov. 26...	3	2	
Siberia.....				Jan. 23, 1922: Present in western districts.
Chita.....	Dec. 26.....			Epidemic.
Vladivostok.....	Dec. 25-31.....	5	1	
Spain:				
Madrid.....	Dec. 1-31.....	1		
Do.....	Jan. 1-31.....	2		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Syria:				
Aleppo.....	Mar. 19-25.....			Present.
Diarbekir.....	Mar. 5-Apr. 1.....			Do.
Mardin.....	do.....			Do.
Tunis:				
Tunis.....	Feb. 5-Mar. 25.....	4	3	
Turkey:				
Constantinople.....	Nov. 20-Dec. 31.....	19		
Do.....	Jan. 1-Apr. 8.....	122	1	
Union of South Africa.....				Nov. 1-Dec. 31, 1921: Cases, 1,368; deaths, 205 (colored). White, 20 cases; deaths, 4. Jan. 1-30, 1922: Cases, 530; deaths, 84, occurring in native population; 12 cases with 2 deaths occurring in white population.
Cape Province.....				Oct. 23-Dec. 24, 1921: Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 1,053; deaths, 158 (colored). Among white population, 19 cases, 3 deaths.
Do.....				Jan. 1-Feb. 18, 1922: Outbreaks. Jan. 1-30, 1922: Cases, 331; deaths, 49 (colored); cases, 9; deaths, 3 (among white population).
East London.....	Oct. 30-Dec. 24.....	3		One death of European at Jenseville, Dec. 6, 1921.
Do.....	Jan. 29-Feb. 11.....	2		Natives.
Natal.....	Nov. 5-Dec. 17.....			Outbreaks. Stated to be prevalent only in Newcastle district. Nov. 1-Dec. 31, 1921: Cases, 135; deaths, 25 (colored). Jan. 1-30, 1922: Cases, 36; deaths, 10 (colored). Among white population, 3 cases.
Orange Free State.....	Nov. 13-Dec. 31.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 158; deaths, 21, (colored).
Do.....	Jan. 1-Mar. 11.....			Outbreaks. Jan. 1-30, 1922: Cases, 133; deaths, 25.
Durban.....	Jan. 15-21.....	1		Imported.
Transvaal.....	Jan. 8-Feb. 11.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 35; deaths, 4 (colored). White, 1 case, 1 death. Jan. 1-30, 1922: Cases, 20 (colored).
Johannesburg District.....	Jan. 12-18.....	26	4	
Venezuela:				
Maracaibo.....	Dec. 20-26.....		1	
Jugoslavia.....				July 3-30, 1921: Cases, 13.
Bosnia Herzegovina.....	July 3-9.....	1		
Croatia Slavonia—				
Zagreb.....	Jan. 1-Mar. 25.....	4		
Montenegro.....	July 3-9.....	3		

## **YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Pernambuco.....	Feb. 19-Mar. 4.....	2	1	
Mexico:				Year 1921: Cases, 115; deaths, 53.
Colima (State).....				Year 1921: Cases, 7; deaths, 4.
Colima.....	Oct. 27.....	4	3	
Manzanillo.....	Aug. 21.....	3	1	
Jalisco (State).....				Year 1921: Cases, 13; deaths, 7.
Guadalajara.....	Nov. 1-30.....	1	1	Imported.
Puerta Vallarta (Las Penas).....	Oct. 5-Dec. 17.....	13	5	
Do.....	Jan. 31.....		1	
Tonila.....	Aug. 31.....	1	1	
Quintana Roo (Territory)—				
Payo Obispo.....	Aug. 8.....	1	1	
Sinaloa (State).....				Year 1921: Cases, 18; deaths, 9.
Culiacan.....	Sept. 17.....	4	1	
Guamuchil.....	Oct. 10.....	1		
Mazatlan.....	Aug. 21.....	1	1	Imported.
Palmar de los Leales.....	Sept. 30.....	12	7	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from December 31, 1921, to May 12, 1922—Continued.**

## **YELLOW FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico—Continued.				
Tamaulipas (State).....				Year 1921: Cases, 1; deaths, 1.
Tampico.....	Jan. 11.....	1	1	
Vera Cruz (State).....				Year 1921: Cases, 75; deaths, 31.
Alamo.....	June 21.....	4	1	Oil camp.
Alvarado.....	July 3.....	1	1	
Barra de Penn.....	July 13.....	1	1	
Cordoba.....	Sept. 22.....	5	3	
Cosamaloapam.....	July 18.....	14	6	
Nogales.....	Oct. 28.....	1	1	
Orizaba.....	.....do.....	1		
Papantla.....	Jan. 14.....	6	3	
Providencia.....	Oct. 23.....	3		
Purga.....	Feb. 7.....	1	1	
Rancho de Santa Rosa.....	Oct. 8.....	2		
Rancho "El Jaguey".....	Sept. 14.....	2	2	
San Pablo (Papantla).....	Sept. 12.....	1		
San Ildefonso.....	Oct. 17.....	2		
Tierra Blanca.....	Sept. 24–Nov. 12.....	4	3	
Tlacotalpan.....	Sept. 14.....	1	1	
Tuxpam.....	Jan. 3.....	8	2	
Vera Cruz.....	Jan. 15.....	18	7	Two of these cases imported. Dec. 20–26, 1921: Cases, 1; deaths, 1. Imported. March, 1922: One case on plantation 165 miles from port of Vera Cruz.

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